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TITLE: Internet based retail dealership management system for automating retail sales of merchandise such as automobiles, efficiently matches stored information about inventory and finance with customer's needs

Basic Abstract Text (1):
NOVELTY - A processor with access to an inventory database and a customer database is configured to process control procedures instructed via a user interface to assist dealership personnel in matching a product in the inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer.

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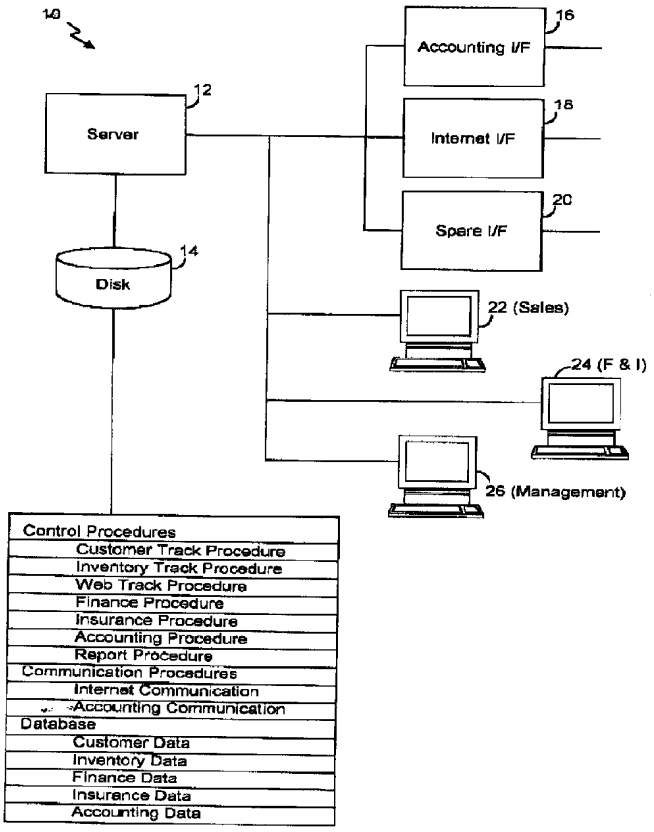
(54) **SYSTEME DE GESTION DE CONCESSIONNAIRE**
(54) **RETAIL DEALERSHIP MANAGEMENT SYSTEM**



(57) A retail dealership management system for operation by dealership personnel includes an inventory database configured to store information specific to a plurality of products in inventory, a customer database configured to store information specific to a plurality of customers who might be interested in a purchasing a product from the retail dealership and, for a least some of the customers, information regarding a specific product of interest selected from a group of products for sale, and a plurality of control procedures. A user interface is operable by the dealership

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personnel. A processor with access to the inventory database and the customer database is configured to process the control procedures instructed via the user interface to assist the dealership personnel in matching a product in the inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer. Additional embodiments include finance products and insurance products. The system is configured to generate work lists and productivity reports for dealership personnel. Another embodiment includes an accounting database configured to store accounting information specific to the dealership management system. Advantages of the invention include streamlined sales at the retail dealerships by providing a customer database than is accessible to all dealership personnel. The system, based on triggers, provides each salesperson with a daily work list of contacts to be made that day. All these advantages help the dealership management manage the sales force and other personnel very effectively.

ABSTRACT OF THE DISCLOSURE

A retail dealership management system for operation by dealership personnel includes an inventory database configured to store information specific to a plurality of products in inventory, a customer database configured to store information specific to a plurality of customers who might be interested in a purchasing a product from the retail dealership and, for a least some of the customers, information regarding a specific product of interest selected from a group of products for sale, and a plurality of control procedures. A user interface is operable by the dealership personnel. A processor with access to the inventory database and the customer database is configured to process the control procedures instructed via the user interface to assist the dealership personnel in matching a product in the inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer. Additional embodiments include finance products and insurance products. The system is configured to generate work lists and productivity reports for dealership personnel. Another embodiment includes an accounting database configured to store accounting information specific to the dealership management system. Advantages of the invention include streamlined sales at the retail dealerships by providing a customer database than is accessible to all dealership personnel. The system, based on triggers, provides each salesperson with a daily work list of contacts to be made that day. All these advantages help the dealership management manage the sales force and other personnel very effectively.

RETAIL DEALERSHIP MANAGEMENT SYSTEM

FIELD

The present invention relates to a retail dealership management system. In particular, the invention automates retail sales of merchandise such as automobiles by storing customer information, inventory information, finance information and other related information and by providing the information to the dealership personnel in order to efficiently match the customer's needs with available inventory and financing.

BACKGROUND

Conventional retail dealerships employ a sales force to meet and greet customers and to gather information from the customers in an effort to match products for sale with the customer's needs. While reference is made herein to an automobile dealership, it is to be understood that the invention applies to any retail dealership. Retail dealerships typically maintain some records such as a list of products in inventory for the salespeople to refer when attempting to match the customer's needs with a product in inventory. However, since some purchases require thought by the customer (especially large purchases) the customer may visit the dealership on more than one occasion and discuss his needs with more than one salesperson. As a result, the customer may be spend a significant amount of time explaining his needs to each salesperson, and the second salesperson may not have the benefit of understanding the customer's needs as they were explained to the first salesperson. This duplication of effort is often inefficient.

Another typical service provided by retail dealerships is to assist in financing and insuring the products for sale. In order to do so the dealership must have information from the customer regarding the customer's financial qualifications, which is often discussed with the salesperson, and the financing and insurance plans available from lenders and insurance companies. However, after the salesperson has identified the product and the customer agrees to purchase the product, conventional retail dealerships pass the customer from the salesperson to a finance manager. This financing procedure requires the finance manager to interview the customer a second time regarding the customer's qualifications to finance the purchase. Many customers find this second interview time consuming and annoying. Then the finance manager must complete a credit report and manually search available financial products an in effort to identify a product that fits within the customer's financial qualifications. Each time the customer suggests a modification to one of the parameters such as the down payment or the monthly payment, the finance manager must manually recalculate the terms based on available financial products. This time consuming process often frustrates customers.

If all goes well and the customer purchases a product from the dealership, maintenance and other follow-up services may be necessary. Conventional dealerships spend countless dollars advertising in newspapers and other media in order to try to attract their original customers back for service. Conventional dealerships do not maintain a database of service intervals for the products sold along with the customer information. As a result, customers may miss their recommended services or have the services performed at alternate facilities.

Moreover, as products are sold to customers, conventional dealerships are slow to update their records after the sale is completed and compile their sales records only once a month or so. Often, this information is not timely enough to order new products for inventory and not timely enough to effectively manage the dealership.

A goal of the invention is to overcome the identified limitations in conventional retail dealership management. What is needed is a retail management system that streamlines the sales process and that allows the customer information to be stored in a database for retrieval by all dealership personnel. In this manner, the

customer need only discuss specific information with one salesperson and that information is available for all personnel to assist in matching products with the customer's needs and the customer's ability to finance and insure the product. Moreover, once a sale is completed, the information is instantly available to the other dealership personnel that can use the data for inventory tracking, accounting and other services.

SUMMARY

The invention overcomes the identified problems and provides a dealership management system that improves the productivity of the sales process. The invention retains customer contact information, reduces repetitive data entry, allows salespersons to effectively sell products, correlates actions of the sales force with accounting and provides a tool to quickly negotiate with the customer to arrive at mutually agreeable terms. In addition, the invention provides the retail dealership with timely accounting to track sales of products in inventory, a mechanism to generate work lists to assist the dealership personnel in improving productivity and other features described below.

Automotive dealers have recognized the importance of relationship selling in the last decade since attracting new customers is becoming cost prohibitive. The invention focuses on retaining current customers and building on existing customer relationships. One tool that is missing from conventional techniques is a robust contact management system. The invention solves this problem by storing information that chronologies the history that each customer has with the dealership. Armed with this information the dealership personnel can have a much more warm and intelligent conversation with the customer. For example, a salesperson can review a customer's service history or sale terms of their present vehicle in order to help recommend an appropriate replacement. Personal notes, such as a birthday, number of family members, work, hobbies, and mileage driven are all maintained and useful in helping a customer determine the best vehicle and terms for their needs. During the buying process the customer may return two or three times before making a purchase. Conventional systems do not organize the storage of notes regarding previous conversations or agreements, so often negotiations must

start all over again. One powerful use of the invention is in managing the prospective customers who have made an initial contact with the dealership but have not yet purchased a product. Current closing ratios in an average dealership are in the 20% range. Out of the 80% of customers who do not purchase in the initial visit, few if any are recorded in a follow up system. Traditional follow up methods are a guest log, with limited information and maintained for 72 hours of follow up. Salespeople were taught to follow up the very next day regardless of the conversation that may have taken place. However, salespeople seldom remember details of even yesterdays conversations so follow up calls are often awkward and ineffective. The invention allow the salesperson to enter personal information about each prospect, vehicle preferences and hot buttons. For example, a note can be entered to indicate that a prospective customer likes a specific new vehicle but is hoping to get a little more for their trade and will not make a decision until their spouse returns at the end of the week. Traditional follow up would be a phone call the next day asking if the prospect if he/she had made a decision yet. The invention prints a personalized thank you letter for visiting the dealership and allows the salesperson to determine the best day for a telephone follow-up. The prospect may be marked for a three day follow-up. The record is then made part of the work list for the assigned day. The salesperson is prompted to call on the assigned day and ask the prospect if their spouse is still planning on returning in a couple days. If so, the salesperson can schedule an appointment because the used car manager may have indicated that there is another buyer for the trade-in. This personalized approach more than doubles the return ratio. If a salesperson fails to make a follow up as indicated the file goes immediately to a sales manager's daily work plan for review.

Prospect information gathered on this system has not been accessible or assessable before. For example, the invention can record other vehicles in their household. This not only creates another service prospect but also cuts the trade cycle in half for future sales. Additionally, most lenders ask for at least three personal references on a credit application. Because this information is taken electronically personalized letters will go out to these references letting them know that the dealership would like to provide them with the same great service that their friend or relative received. The system queues customers with the same work

number to prospect additional workers in the same company and a cross directory will allow for the solicitation of neighbors that are looking at the new car in the driveway. Repeat, referral and reputation are still among the top reasons customers choose to do business at a particular dealership. Conventional tools did not allow for the identification and active pursuit of these hot prospects. With the invention, current customers can easily be reassigned when there is employee turnover. When new incentives are announced, extensive sort features will identify those customers most likely interested in the current promotion. Data managed at an enterprise level can reduce direct marketing costs and improve response rate. Today's consumers can do all their research information from home. There is a steady increase in the number of consumers shopping by the Internet, e-mail, phone and referral services such as their credit union or auto club. It is increasingly important to manage prospects form every point of contact. The invention represents a product in the market designed exactly that way.

Additionally, sales person productivity is a big issue. Eighty percent of sales work occurs on the weekend and out of every 10 walk-ins only 2 will purchase vehicles. The challenge surrounds customer tracking and utilizing such information to leverage sales force and increase productivity. Most conventional dealerships operate a manual system that does not allow for short term and long term management of customers and does not allow for automatic manipulation of such information to maximize sales productivity by leveraging the value of such data. The invention allows for timely collection of customer related information that is made available for management and that automatically plans activities for salespeople and controls such activity to maximize productivity. Based on the information received concerning the customer, the invention can plan salesperson activity during down times and provide electronic work plan which is then forwarded to sales manager for review. For example, references are provided as part of credit application process. The invention extracts such information calls such references and determines whether they would be available for a vehicle and then updates database for the future. If such reference had just bought a particular vehicle, reference can still become service related customer. In addition, based on

the conversation regarding plans to keep vehicle, the system can issue a reminder when she is back in the market for such a vehicle.

An exemplary embodiment of a retail dealership management system for operation by dealership personnel comprises an inventory database configured to store information specific to a plurality of products in inventory, a customer database configured to store information specific to a plurality of customers who might be interested in a purchasing a product from the retail dealership and, for a least some of the customers, information regarding a specific product of interest selected from a group of products for sale, and a plurality of control procedures. A user interface is operable by the dealership personnel. A processor with access to the inventory database and the customer database is configured to process the control procedures instructed via the user interface to assist the dealership personnel in matching a product in the inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer.

Another embodiment includes a finance database configured to store finance products for customers to finance the product for purchase by the customer. The processor has access to the finance database and is further configured to process the control procedures instructed via the user interface to assist the salesperson in matching a finance product in the finance database with the customer specific information in the customer database and the product for purchase by the customer.

Another embodiment includes an insurance database configured to store insurance products for customers to insure the product for purchase by the customer. The processor has access to the insurance database and is further configured to process the control procedures instructed via the user interface to assist the salesperson in matching an insurance product in the insurance database with the customer specific information in the customer database and the product for purchase by the customer.

Another embodiment includes an accounting database configured to store accounting information specific to the dealership management system. The processor is configured to generate an entry in the accounting database for each step taken by the dealership personnel and for each product purchased by a customer. The dealership management personnel can review the records to determine each

salesperson's productivity and the number of cars or amount of gross sales made by each salesperson.

Another embodiment employs the customer database to identify trigger events to generate work lists that inform the dealership personnel to perform predetermined actions. For example, a trigger event can be initiated by the customer's upcoming completion of a finance term or lease term. The system would prompt the dealership personnel to contact the customer to determine whether the customer would like to purchase a new product and trade in the old product. Additional triggers can be set for maintenance intervals or other similar events.

Advantages of the present invention include streamlined sales at the retail dealerships by providing a customer database than is accessible to all dealership personnel. The system, based on triggers, provides each salesperson with a daily work list of contacts to be made that day. The system provides follow-up maintenance letters and provides salesperson productivity reports. All these advantages help the dealership management manage the sales force and other personnel very effectively.

BRIEF DESCRIPTION OF THE FIGURES

Additional advantages of the invention will become apparent upon reading the following detailed description and upon reference to the drawings, in which:

Figure 1 depicts the physical system architecture according to an embodiment of the invention;

Figure 2 depicts the functional system architecture according to an embodiment of the invention;

Figure 3 shows the data gathered by the system and entered and retrieved by dealership personnel interacting with the system;

Figure 4 shows the deal flow in the dealership;

Figures 5A-D show an example user interface for the dealership personnel to enter customer data into the system;

Figure 6 is a data structure for storing customer information in the system;

Figures 7A-E show an example user interface for the dealership personnel to enter customer data into the system;

Figure 8 shows a credit application generated by the system;

Figures 9A-H show an example user interface for the dealership personnel to enter trade-in data into the system;

Figure 10 is a data structure for storing trade-in information in the system;

Figures 11A-D show an example user interface for the dealership personnel to enter finance and insurance data into the system;

Figure 12 is a data structure for storing finance and insurance information in the system;

Figure 13 depicts the functional finance and insurance procedure according to an embodiment of the invention;

Figures 14A-B shows a data structure for storing salesperson information and a sample salesperson work list; and

Figure 15 is a data structure for storing dealership information.

DETAILED DESCRIPTION

Exemplary embodiments are described with reference to specific configurations. Those skilled in the art will appreciate that various changes and modifications can be made while remaining within the scope of the claims. For example, the exemplary embodiment is that of an automobile dealership but it is to be understood that the invention applies to any retail dealership.

1. System Architecture

The invention is intended to streamline the sales process in a retail dealership. Customer information will be available to all dealership personnel and can be used for various aspects of sales and service in order to efficiently serve the customer.

Figure 1 shows the system architecture 10 including a server 12 with a memory 14. The memory 14 stores programs and data as described below. The system has an accounting interface 16 that communicates with an accounting system for generating accounts receivable, paychecks and other standard accounting functions. In some one aspect of the invention, the accounting interface is a computer communicating with a commercial accounting service such as ADP or

Reynolds & Reynolds. An Internet interface 18 communicates with the Internet to provide web-based services as described below. A spare interface 20 communicates with other networks as needed. While the Internet interface and spare interface are shown coupled to the server 12, in an alternate embodiment the client computers 22, 24, 26 can directly access other networks via modem.

Client computers 22, 24, 26 are the user interfaces divided by privilege level and location in the dealership. The client computers are typically computers such as Pentium class personal computers running Microsoft Windows. In one aspect of the invention, the application programs (described herein as procedures) run on the client computers and access data resident on the server. If the server is a powerful computer (e.g. mainframe), the user interfaces can be simple terminals with a monitor, keyboard and mouse. The dealership personnel log onto their respective client computers and are allowed to access information according to their privilege level. For example, a salesperson may only have access to customer data, while a finance manager may have access to customer data and accounting data.

Figure 2 shows the functional architecture including a customer track procedure 30 coupled to a database 34. The customer track procedure is used to enter and compile information on the dealership's customers and potential customers that is stored in the database 34. The database 34 includes an accounting database 34a and an information database 34b. Database 34a often includes some identical information as stored in database 34b, but is primarily used in conjunction with an accounting service such as ADP or Reynolds to maintain accounting records and to print checks for accounts payable and to maintain tax records. The database 34b can be stored on disk 14 while the database 34a can be accessed via accounting interface 16. The information database 34b includes component databases such as a customer database, an inventory database, a finance database, an insurance database and a reports database.

An inventory track procedure 40 is coupled to the database 34 and is used to enter and compile information on the dealership's product inventory that is stored in the database 34. The dealership inventory can include new and used products, such as new cars and used cars. One aspect to the inventory procedure 40 is a value estimator using a value database such as Kelly Blue Book. For example, the value

of used products can be estimated when they are placed into inventory. This information is especially useful for trade-in transactions and for re-sale transactions.

A web track procedure 50 is coupled to the inventory track procedure 40 and conveys information from the inventory track procedure to an Internet server 52. The web track procedure 50 provides inventory information to the Internet server 52 that provides web pages to display the dealership's product inventory to potential customers over the Internet. Moreover, the web track procedure can also send out inventory information to other services such as Auto-By-Tel, Classifieds 2000 or other service. The Internet server 52 is also useful to receive inquiries from customers regarding the displayed products and to assist the dealership personnel in responding to potential customers. Inquiries are tracked by the Internet server and the web track procedure compiles web activity reports showing which web pages were reviewed and which products were reviewed.

A finance and insurance (F&I) procedure 60 is coupled to the database 34 and is used to access information on the dealership's finance and insurance products. The F&I procedure 60 is made up of a finance procedure and an insurance procedure. The F&I procedure 60 has access to the customer information and can obtain credit reports, DMV driving record reports and other information to determine the customer's ability to purchase a product from inventory. This information is typically gained by access through spare interface 20 to a credit bureau, the DMV or other agency, although the client computer 24 can also be configured with another direct network interface such as a modem. The F&I procedure 60 can store interest rates offered by various lenders and can calculate various loan and lease options for the customer in order to match the customer with a finance product. The F&I procedure can also store insurance rates offered by various insurance companies and can calculate various insurance options for the customer in order to match the customer with an insurance product.

A report procedure 70 is contained within the customer track procedure 30 and is used to generate various reports for the dealership personnel. For example, the reports procedure can generate work lists for salespersons to follow up on customer prospects and can generate reports for the sales manager that shows the number of leads generated by each salesperson, the number of demonstration rides

given by each salesperson and the number of cars sold by each salesperson. The reports are generated based on triggers such as a date trigger.

2. Database Generation and Deal Flow

Each of the databases is used to store information that the procedures 30, 40, 50, 60 and 70 can use to compile and process data. Each of the procedures explained above is employed during a typical deal between a customer and the retail dealership. Figure 3 shows the data gathered by the system 10 and entered and retrieved by dealership personnel interacting with the database 34. Figure 4 shows the deal flow in the dealership. The database generation and deal flow is described with reference to Figures 4 through 15.

Referring to Figure 4 steps 102 and 104, a salesperson meets and greets a customer at the dealership to discuss products with the customer and escort the customer to a sales desk configured with a client computer 22. The salesperson will ask the customer for some personal information such as name and address and will enter this information into the database 34 using the customer track procedure 50. The system can also store an electronic copy of the customer's photograph in the customer information.

Figure 5 shows an example user interface for the salesperson to enter the data. In some cases, some of the data can be entered by swiping the customer's driver's license in those states where information is stored on the driver's license in electronic form, such as in an magnetic strip. Moreover, in other cases when the customer is a repeat customer, the information can be retrieved from the database 34 by entering identifying information such as the customer's name or telephone number.

The customer information entered into the user interface 22 is shown in Figure 6 as a data structure 202 in database 34. The data structure 202 is broken into several categories including general information 204, personal information 206, contact history 208, vehicle information 210 and related customers 212. Each of these categories include elements as shown in Figure 6.

Once the salesperson and the customer have discussed possible products for sale, the salesperson enters a vehicle description into the user interface 22 and

retrieves a list of matching products (e.g. vehicles). The salesperson then escorts the customer directly to the vehicles with keys for the vehicles in hand. A presentation and demonstration ride are then completed. If the customer agrees to purchase the vehicle, the salesperson completes an electronic credit application for the customer as shown in step 106 and Figures 7A-E. The credit information entered into the user interface 22 is shown in Figure 8 as a data structure 250 in database 34. At step 108, the salesperson obtains the customer's credit report. If the customer has a previous credit application or credit report on file, the salesperson can simply retrieve the prior application or report.

If the customer has a trade-in vehicle, the salesperson invokes the inventory track procedure 40 at step 110 and enters the trade-in stock number and vehicle and identification number (VIN number) of the trade as shown in Figures 9A-H. The system decodes the VIN numbers (often called a VIN explosion) to automatically determine the year, make, model and other information regarding the trade-in vehicle. The vehicle information is shown in Figure 10 as a data structure 300 in database 34. The system 10 then references the vehicle against a value estimate database (such as Kelly Blue Book) and prints an appraisal slip at the sales manager's desk. The credit application may also be printed at the sales manager's desk for reference. The system flags existing credit reports for the sales manager. At step 112, the used car manager reviews the actual cash value (ACV) report and may review the customer's credit report at step 114. At step 116, the used car manager submits the ACV report into the system, which records an appraisal.

At step 118, the sales manager simply recalls the existing information and adjusts the deal terms based on negotiations with the customer, including a possible review of the credit report at step 120. The sales manager then reviews whether a trade is applicable in step 122 and if so, appraises the trade in step 124.

In step 126, the deal is submitted to the finance manager for review and a cap sheet is generated in step 128. Since all the necessary information is already stored in database 34, the finance manager can review the deal at the user interface 24. The system calculates the terms and set up charges involved in the deal that are predetermined by the dealership senior management as described in greater detail below.

Assuming the customer is interested in financing the purchase, the dealership assists the customer in deciding among various finance products that fit within the financial resources of the customer. Finance and insurance (often referred to as F&I) includes loan products, lease products as well as insurance products and other related products. For example, the customer may want to include an extended warranty product that is valid for the full loan or lease term of the vehicle.

In step 128, the terms of the deal are passed to a finance manager who reviews the cap sheet and invokes the finance and insurance procedure 60 at step 130. The finance and insurance procedure 60 accesses the database 34 to recall available interest rates from selected lenders and the customer's credit report to determine what finance products are available for the customer. The initial terms of the finance are entered into the user interface 24 as shown in Figures 11A-D.

The finance information entered into the user interface 24 is shown in Figure 12 as a data structure 350 in database 34. The data structure 350 includes all the information that is either entered into the user interface or calculated by the system. If the finance manager enters selected information into the F&I procedure 60 via the user interface 24, the system calculates some of the missing information. For example, the MSRP can be entered along with the APR and number of months, and the system will calculate the payments.

Figure 13 shows the finance and insurance procedure 60 for calculating the finance and insurance information. When the finance manager and the customer discuss the various payment options and lenders, the finance manager can modify various parameters in the F&I procedure based on customer's financial qualifications and other issues (loan v. lease) to determine the best finance package for the customer. The F&I procedure 60 will recalculate the parameters based on the new information. For example, if a customer wants a longer payment duration, the payment duration can be extended and the monthly payment will most likely decrease. The finance and insurance procedure can also freeze selected parameters that are not to be recalculated. For example, the customer may request that the down payment be decreased and the payment duration remain the same. The finance and insurance procedure will recalculate the finance and will most likely raise the ending balloon payment or residual value of the vehicle. Additionally, the finance

and insurance procedure allows the finance manager and customer to review the alternatives between various products such as a loan product, a balloon payment product and a lease product by activating the buttons 342a, 342b and 342c, in Figure 11A, respectively. The finance and insurance procedure recalculates the various parameters as necessary.

With respect to insurance, the finance manager can assist the customer in selecting among various insurance products that are available based on the customers driving record and the desired coverage. When all the terms are agreed upon, in steps 132, 134 and 136, the finance manager prints out the forms for the customer's signature. The forms are signed by the customer and then transmitted (e.g. by fax) to the selected lender and insurance company.

Once the transaction is completed, the trade-in vehicle is inspected by a dealership mechanic and conditioned for resale. When the vehicle is released as ready for resale, the vehicle information is automatically sent to the web track procedure 50 for queuing on the Internet and Intranet sites for retail listing. This procedure is valuable as it avoids having used car or wholesale operations load and manage net based vehicle inventory. The process also allows dealer to capture used car inventory at the earliest possible moment and make directly available to the buying public which directly improves turnover ratio and profitability. This is an advantage over other providers of used car Internet inventories that extract information from ADP or similar legacy systems that does not contain an accurate description of used vehicles associated with VIN number explosion capability.

Additionally, once the transaction is completed, the customer information is automatically loaded into an electronic work plan for the salesperson to assure that all sold customers are contacted at required intervals such as maintenance intervals. The follow-up contacts with the customer are described below under the heading Dealership Management and Report Generation.

3. Dealership Management and Report Generation

Dealership management is an important aspect of the invention. This concept includes both personnel management as well as financial management. The personnel aspects of the invention provides detailed and timely information about

department productivity and generates work lists for the various departments using the report procedure 70. The personnel records can be broken down by each person at the dealership. The financial aspects of the invention provide detailed and timely information about the inventory sold and the inventory taken as trade-ins as well as profit statements.

The system compiles activity records for each of the salespersons in the report procedure 70. Figure 14A shows a data structure 400 that includes elements for each of the customers met by the salesperson, each of the customers that the salesperson took on a demonstration ride, each of the customers who completed a finance and insurance deal, the total sales closed by the salesperson, the gross profits attributable to the salesperson and the gross commissions to be paid to the salesperson.

A work list pointer 414 is also associated with the salesperson and includes work list information for that salesperson. A sample work list is depicted in Figure 14B. The work lists can be generated by a trigger on a periodic basis, e.g. daily, showing what follow-up contacts should be made by the salesperson that day, what types of letters should be mailed out by the salesperson and so on. For example, a work list can be generated based on information in the database 34 such as all customers who purchased a car 6 months ago so that a phone call can be placed or a letter can be generated and mailed to the customer to make sure that the customer is satisfied with the new car that was purchased. Another work list item includes tasks of placing calls or sending letters to customers whose loan or lease will be completed in the upcoming months and asking if they would like assistance in obtaining a new vehicle. Still other work list items include tasks such as placing a call or mailing a letter when a child in the household becomes of driving age and asking if the dealership can assist in finding an appropriate car for the new driver.

Additional work lists are created for other departments such as the finance department that may want to contact customers when loan rates drop or when lease terms will be completed in the upcoming months. For example, the finance manager may be able to extend a customer's lease at a rate that is attractive to the customer.

Work lists with also be generated for the maintenance department to place calls or send out letters to customers who may require periodic or scheduled maintenance. For each product sold, the database 34 includes a predetermined maintenance schedule for the product and the system automatically generates a reminder letter to remind the customer to schedule an appointment for service. The reminder letter to the customer to bring the vehicle in for service assists the dealership in keeping the customer loyal and happy and in keeping the vehicles well maintained for optimal re-sale as a used car when the customer trades in the car.

The parts department can also use the work lists to insure that sufficient parts are in stock for upcoming maintenance of prospective vehicles. For example, if a large number of vehicles are expected to need oil changes, the parts department will have a work list that includes the need to insure that enough oil is in stock. Moreover, the parts department can connect to the vehicle manufacturers via the Internet interface 18 or spare interface 20 to order parts that are included on their work list.

With respect to the financial aspects of the invention, dealership management can review the sales force performance of each salesperson and their number of contacts, demonstration drives, etc. contained in data structure 400. The dealership management will have access via the user interface 26 to access a data structure 450 that includes pointers to each of the salesperson's records 400. Additionally, the dealership management can review accounting information including profit information at any time (rather than simply at the end of the month).

4. Internet Applications for Dealerships

The invention allows dealerships to capture information about their inventory and deliver the data to an Internet site, such as Internet server 52, for display on the Internet. In one aspect of the invention, the dealership can add, through the inventory procedure 40, products on the Internet or from other locations. The information uploaded via Internet interface 18 by the web track procedure 50 includes detailed information on the dealership inventory and is updated by the inventory track procedure 40 each time a new vehicle is added, for example by a trade-in. The web track procedure and Internet server allows customers to review

the inventory and also provides a mechanism for customers to inquire about the vehicles in inventory.

5. Other application interfaces (DMV, MFR, parts)

Additional interfaces for the system are to the department of motor vehicles (DMV) and to the manufacturer. The DMV interface can be useful since it allows the vehicle records to be accessed electronically and for the vehicles to be registered electronically. This speeds up the registration process. Additionally, the DMV records can confirm that the lienholder on a prospective trade-in vehicle has been paid in full and that the customer has the legal authority to trade-in the vehicle.

The manufacturer interface can be useful for identifying all aspects of the product and for ordering new products when the inventory becomes low. The system provides immediate information to dealership personnel regarding the number of vehicles sold and therefore, orders can be placed any time of the month, rather than at the end of the month as in conventional dealerships. Additionally, the system allows the parts department to order parts as needed and for the maintenance department to review the latest reports on each vehicle including any safety updates.

6. Conclusion

The invention provides many advantages over known techniques. Advantages of the invention include streamlined sales at the retail dealerships by providing a customer database than is accessible to all dealership personnel. The system, based on triggers, provides each salesperson with a daily work list of contacts to be made that day. The system provides follow-up maintenance letters and provides salesperson productivity reports. All these advantages help the dealership management manage the sales force and other personnel very effectively.

Having disclosed exemplary embodiments and the best mode, modifications and variations may be made to the disclosed embodiments while remaining within the scope of the invention as defined by the following claims.

CLAIMS

What is claimed is:

1. A retail dealership management system for operation by dealership personnel comprising:

an inventory database configured to store information specific to a plurality of products in inventory;

a customer database configured to store information specific to a plurality of customers who might be interested in a purchasing a product from the retail dealership including, for a least some of the customers, information regarding a specific product of interest selected from a group of products for sale;

a plurality of control procedures including a customer track procedure;

a user interface operable by dealership personnel; and

a processor with access to the inventory database and the customer database and configured to process the control procedures instructed via the user interface to assist the dealership personnel in matching a product in the inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer.

2. The retail dealership management system of claim 1, wherein:

the control procedures include an inventory procedure; and

the processor is configured to update the inventory database when a transaction is made between the dealership and the customer.

3. The retail dealership management system of claim 2, wherein:

the processor is further configured to determine a value of a trade-in by comparing a trade-in based at least in part on it's VIN number to a database of values representative of the trade-in depending on attributes of the trade-in.

4. The retail dealership management system of claim 1, further comprising:

a finance database configured to store finance products for customers to finance the product for purchase by the customer;

wherein the control procedures further includes a finance procedure; and

wherein the processor has access to the finance database and is further configured to process the control procedures instructed via the user interface to assist the dealership personnel in matching a finance product in the finance database with the customer specific information in the customer database and the product for purchase by the customer.

5. The retail dealership management system of claim 4, further comprising:

an insurance database configured to store insurance products for customers to insure the product for purchase by the customer;

wherein the control procedures further includes an insurance procedure; and

wherein the processor has access to the insurance database and is further configured to process the control procedures instructed via the user interface to assist the dealership personnel in matching an insurance product in the insurance database with the customer specific information in the customer database and the product for purchase by the customer.

6. The retail dealership management system of claim 1, further comprising:

an accounting database configured to store accounting information specific to the dealership management system;

wherein the control procedures include an accounting procedure; and

wherein the processor is configured to generate an entry in the accounting database for each product purchased by a customer.

7. The retail dealership management system of claim 1, further comprising:

a report database configured to store a plurality of reports including work lists;

wherein the control procedures include a report procedure; and

wherein the processor is configured to generate the report database based on a trigger.

8. The retail dealership management system of claim 7, wherein:

the system is configured to generate reports specific to a group of dealership personnel and to electronically deliver the reports to the group of dealership personnel for action in accordance with the reports.

9. The retail dealership management system of claim 7, wherein:

the system is configured to generate reports specific to departments within the dealership and to electronically deliver the reports to the departments for action in accordance with the reports.

10. The retail dealership management system of claim 1, wherein:

the control procedures include an inventory procedure and a web track procedure; and

wherein the processor is configured to update an Internet web page by processing the web track procedure when instructed by the inventory procedure where the Internet web page will result in having a content based at least in part on the inventory database.

11. A method of retail dealership management comprising the steps of:

storing information specific to a plurality of products in inventory in an inventory database;

storing information specific to a plurality of customers who might be interested in a purchasing a product from the retail dealership in a customer database including, for a least some of the customers, information regarding a specific product of interest selected from a group of products for sale;

storing a plurality of control procedures including a customer track procedure; and

processing the control procedures instructed via a user interface and assisting dealership personnel in matching a product in the inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer.

12. The method of claim 11, wherein:

the step of storing a plurality of control procedures includes storing an inventory procedure; and

the processing step includes the step of updating the inventory database when a transaction is made between the dealership and the customer.

13. The method of claim 12, wherein:

the processing step includes the step of determining a value of a trade-in by comparing a trade-in based at least in part on it's VIN number to a database of values representative of the trade-in depending on attributes of the trade-in.

14. The method of claim 11, further comprising the step of:

storing finance products for customers to finance the product for purchase by the customer in a finance database;

wherein the step of storing a plurality of control procedures includes storing a finance procedure; and

wherein the processing step includes the step of processing the control procedures instructed via the user interface and assisting the dealership personnel in matching a finance product in the finance database with the customer specific information in the customer database and the product for purchase by the customer.

15. The method of claim 14, further comprising the step of:

storing insurance products for customers to insure the product for purchase by the customer in an insurance database;

wherein the step of storing a plurality of control procedures includes storing an insurance procedure; and

the processing step includes the step of processing the control procedures instructed via the user interface and assisting the dealership personnel in matching an insurance product in the insurance database with the customer specific information in the customer database and the product for purchase by the customer.

16. The method of claim 11, further comprising the step of:

storing accounting information specific to the dealership management system in an accounting database;

wherein the step of storing a plurality of control procedures includes storing an accounting procedure; and

wherein the processing step includes the step of generating an entry in the accounting database for each product purchased by a customer.

17. The method of claim 11, further comprising the step of:

storing a plurality of reports including work lists in a report database;

wherein the step of storing a plurality of control procedures includes storing a report procedure; and

wherein the processing step includes the step of generating the report database based on a trigger.

18. The method of claim 17, wherein:

the processing step includes the step of generating reports specific to a group of dealership personnel and electronically delivering the reports to the group of dealership personnel for action in accordance with the reports.

19. The method of claim 17, wherein:

the processing step includes the step of generating reports specific to departments within the dealership and electronically delivering the reports to the departments for action in accordance with the reports.

20. The method of claim 11, wherein:

the step of storing a plurality of control procedures includes storing an inventory procedure and a web track procedure; and

the processing step includes the step of updating an Internet web page by processing the web track procedure when instructed by the inventory procedure where the Internet web page will result in having a content based at least in part on the inventory database.

21. A method of selling a product at a retail dealership comprising the steps of:

dealership personnel meeting a customer at the retail dealership who might be interested in a purchasing a product from the retail dealership;

entering into a customer database information specific to the customer including information regarding a specific product of interest selected from a group of products for sale; and

using a dealership management system to assist the dealership personnel in matching a product in an inventory database with the customer specific information in the customer database in order to identify a product for purchase by a customer.

22. The method of claim 21, further comprising the step of:

updating the inventory database when a transaction is made between the dealership and the customer.

23. The method of claim 22, further comprising the step of:

determining a value of a trade-in by comparing a trade-in based at least in part on it's VIN number to a database of values representative of the trade-in depending on attributes of the trade-in.

24. The method of claim 21, further comprising the step of:

wherein the using step includes the step of using the dealership management system to assist the dealership personnel in matching a finance product in a finance database with the customer specific information in the customer database and the product for purchase by the customer.

25. The method of claim 24, further comprising the step of:

wherein the using step includes the step of using the dealership management system to assist the dealership personnel in matching an insurance product in an insurance database with the customer specific information in the customer database and the product for purchase by the customer.

26. The method of claim 21, further comprising the step of:

generating an entry in an accounting database for each product purchased by a customer.

27. The method of claim 21, further comprising the step of:

generating a report database including work lists based on a trigger.

28. The method of claim 27, wherein:

the generating step includes the step of generating reports specific to a group of dealership personnel and electronically delivering the reports to the group of dealership personnel for action in accordance with the reports.

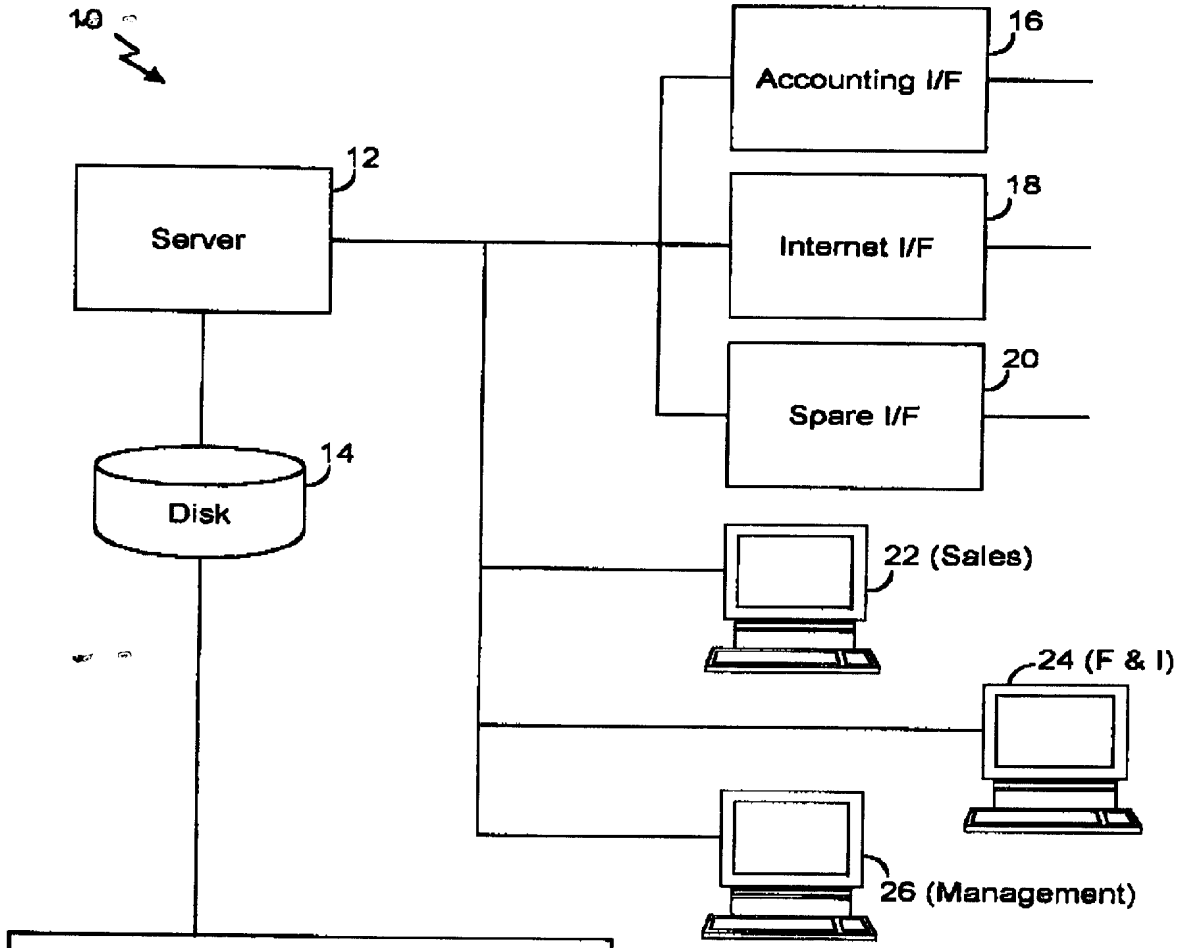
29. The method of claim 27, wherein:

the generating step includes the step of generating reports specific to departments within the dealership and electronically delivering the reports to the departments for action in accordance with the reports.

30. The method of claim 21, further comprising the step of:

updating an Internet web page where the Internet web page will result in having a content based at least in part on the inventory database.

& Biggar
va, Canada
nt Agents



Control Procedures
Customer Track Procedure
Inventory Track Procedure
Web Track Procedure
Finance Procedure
Insurance Procedure
Accounting Procedure
Report Procedure
Communication Procedures
Internet Communication
Accounting Communication
Database
Customer Data
Inventory Data
Finance Data
Insurance Data
Accounting Data

FIG. 1

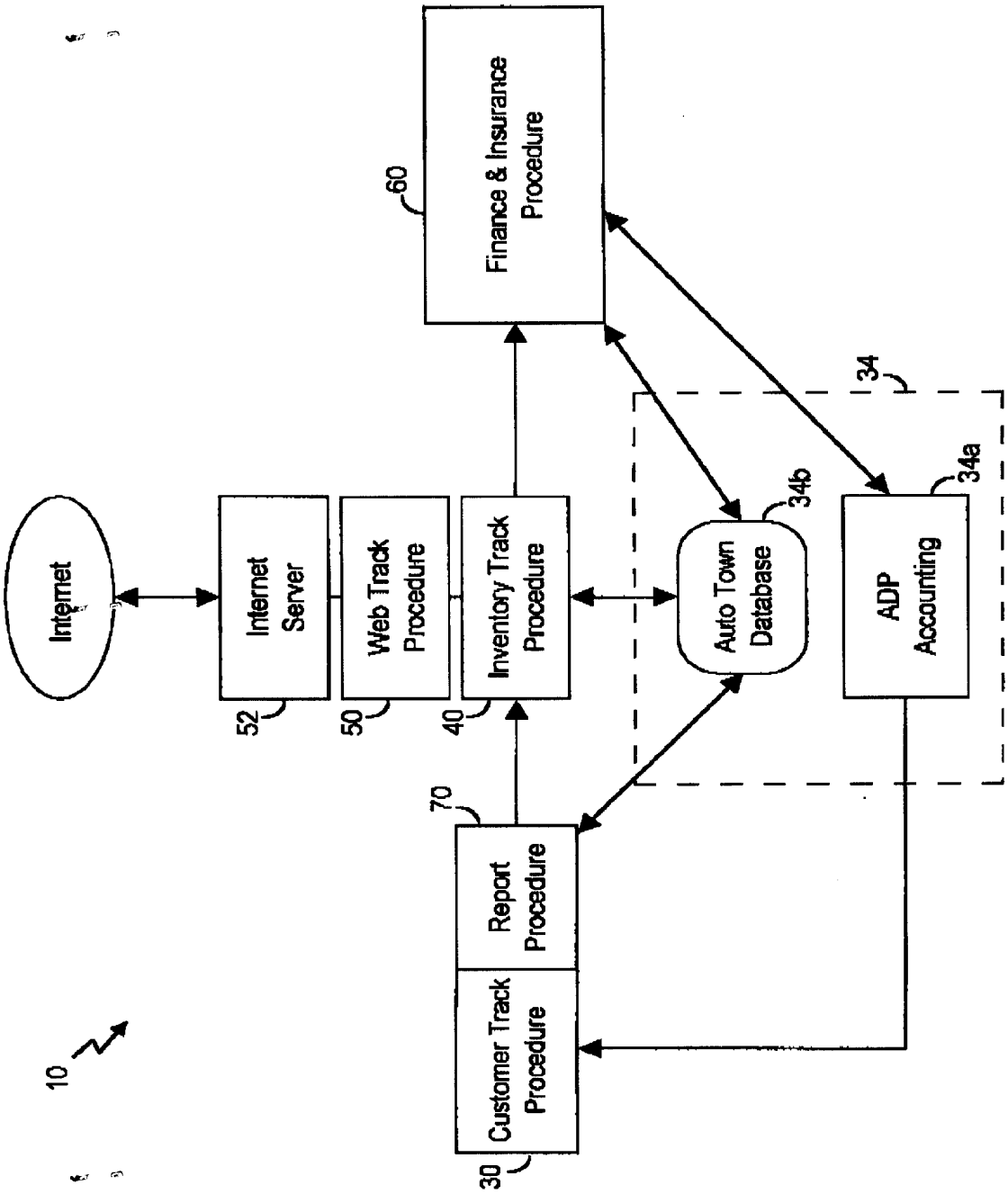

Internet
Internet Server
Web Track Procedure
Inventory Track Procedure
Finance & Insurance Procedure
Auto Town Database
ADP Accounting
Report Procedure
Customer Track Procedure
10
30
34
34a
34b
40
50
52
60
70

FIG. 2

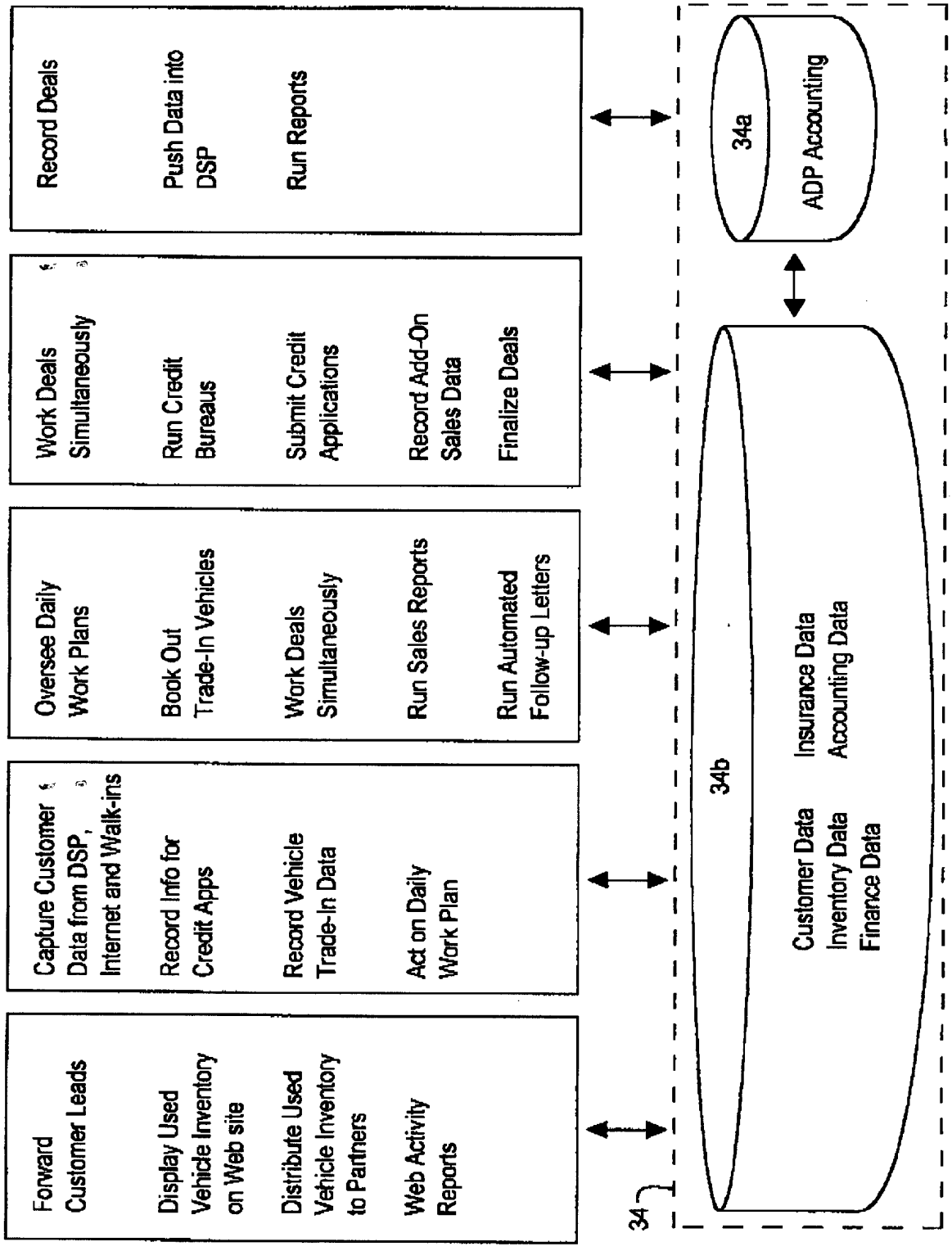

Internet
Forward Customer Leads
Display Used Vehicle Inventory on Web site
Distribute Used Vehicle Inventory to Partners
Web Activity Reports
Sales
Capture Customer Data from DSP, Internet and Walk-ins
Record Info for Credit Apps
Record Vehicle Trade-In Data
Act on Daily Work Plan
Sales Manager
Oversee Daily Work Plans
Book Out Trade-In Vehicles
Work Deals Simultaneously
Run Sales Reports
Run Automated Follow-up Letters
F & I
Work Deals Simultaneously
Run Credit Bureaus
Submit Credit Applications
Record Add-On Sales Data
Finalize Deals
Accounting
Record Deals
Push Data into DSP
Run Reports
34
34b
Customer Data
Inventory Data
Finance Data
Insurance Data
Accounting Data
34a
ADP Accounting

FIG. 3

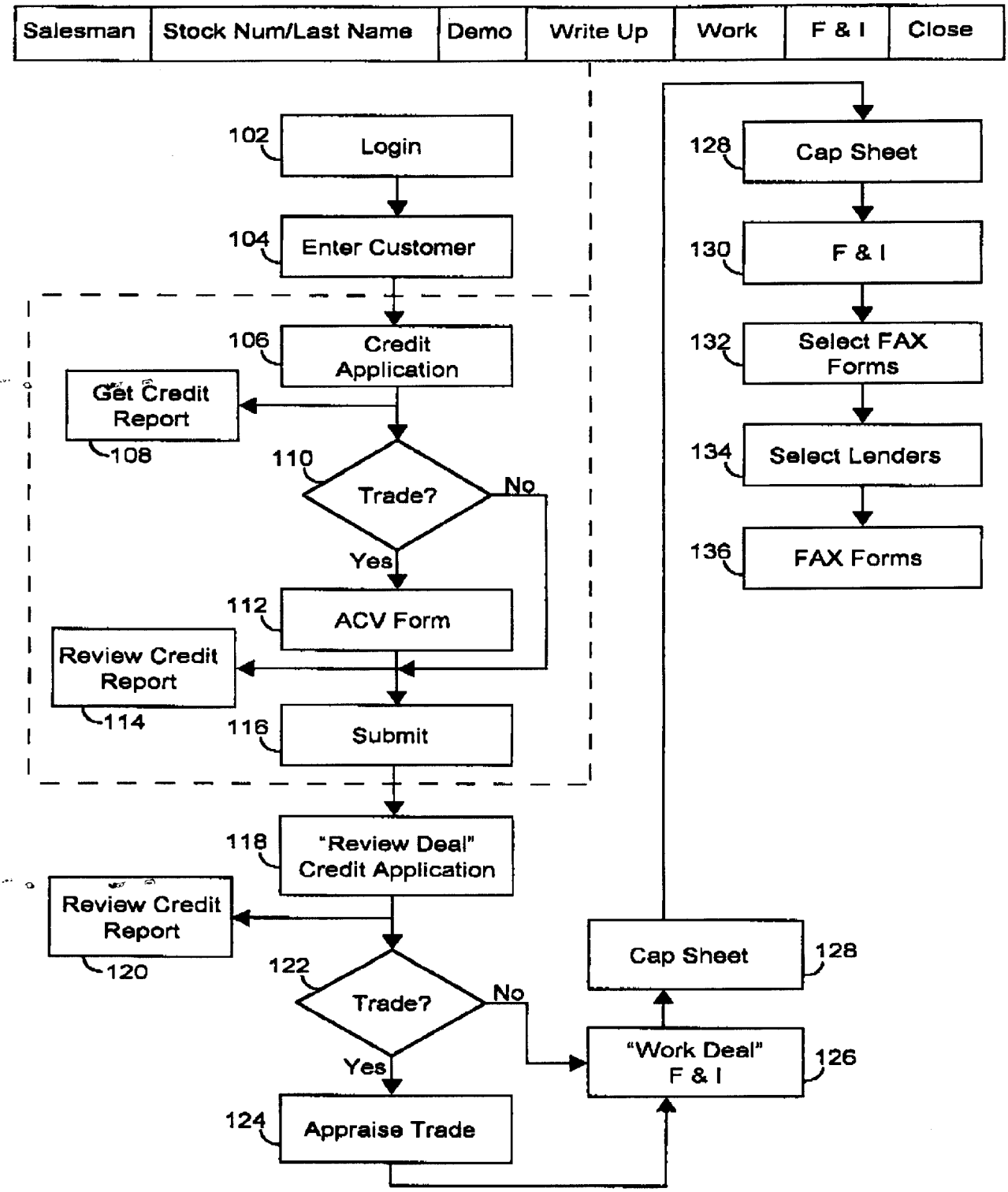
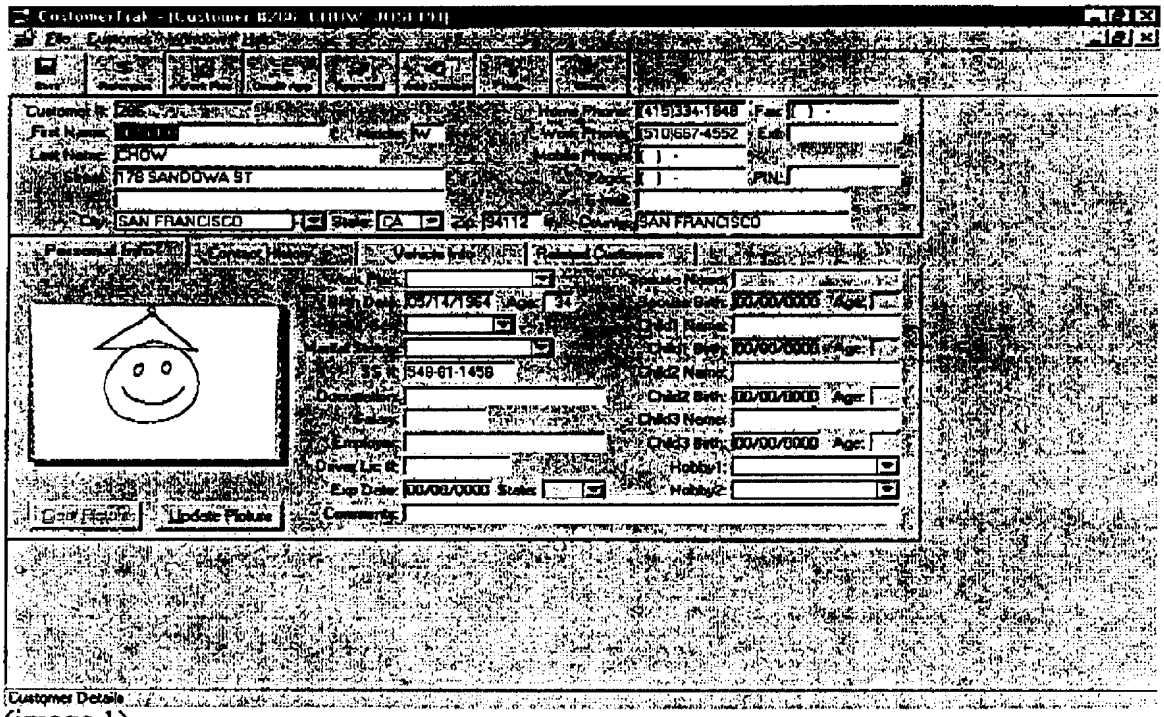
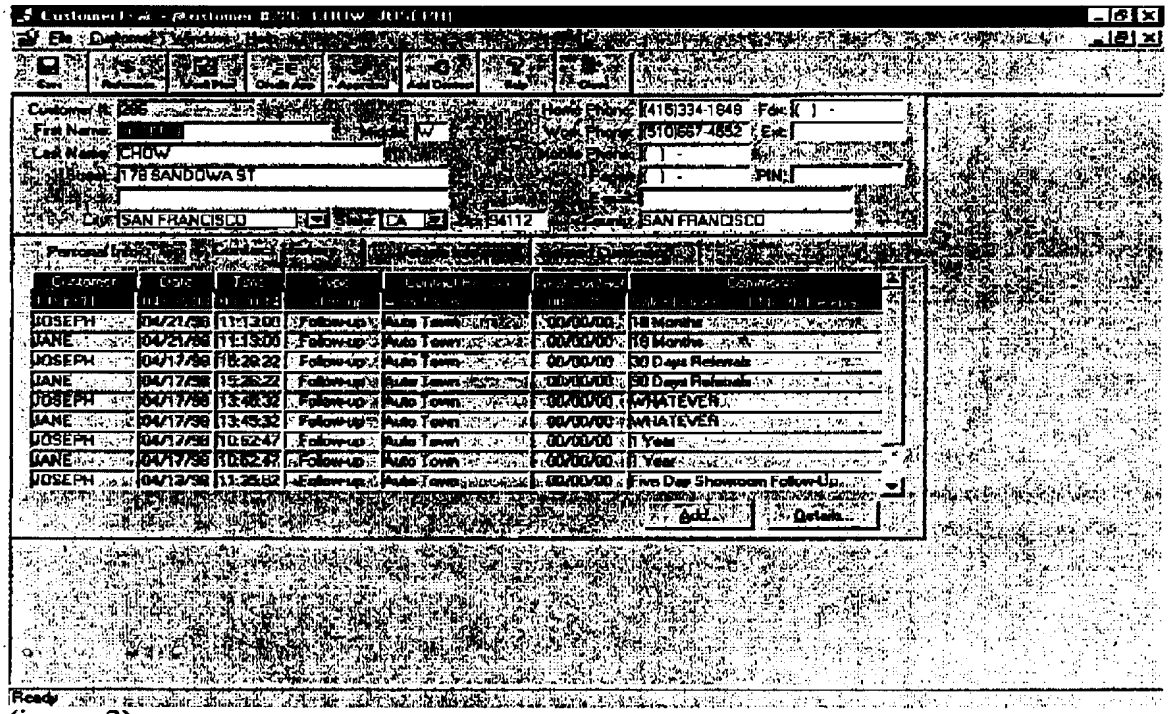

Salesman
Stock Num/Last Name
Demo
Write Up
Work
F & I
Close
102
Login
104
Enter Customer
106
Credit Application
Get Credit Report
108
110
Trade?
No
Yes
112
ACV Form
Review Credit Report
114
116
Submit
118
"Review Deal" Credit Application
Review Credit Report
120
122
Trade?
No
Yes
124
Appraise Trade
Cap Sheet
128
"Work Deal" F & I
126
128
Cap Sheet
130
F & I
132
Select FAX Forms
134
Select Lenders
136
FAX Forms

FIG. 4



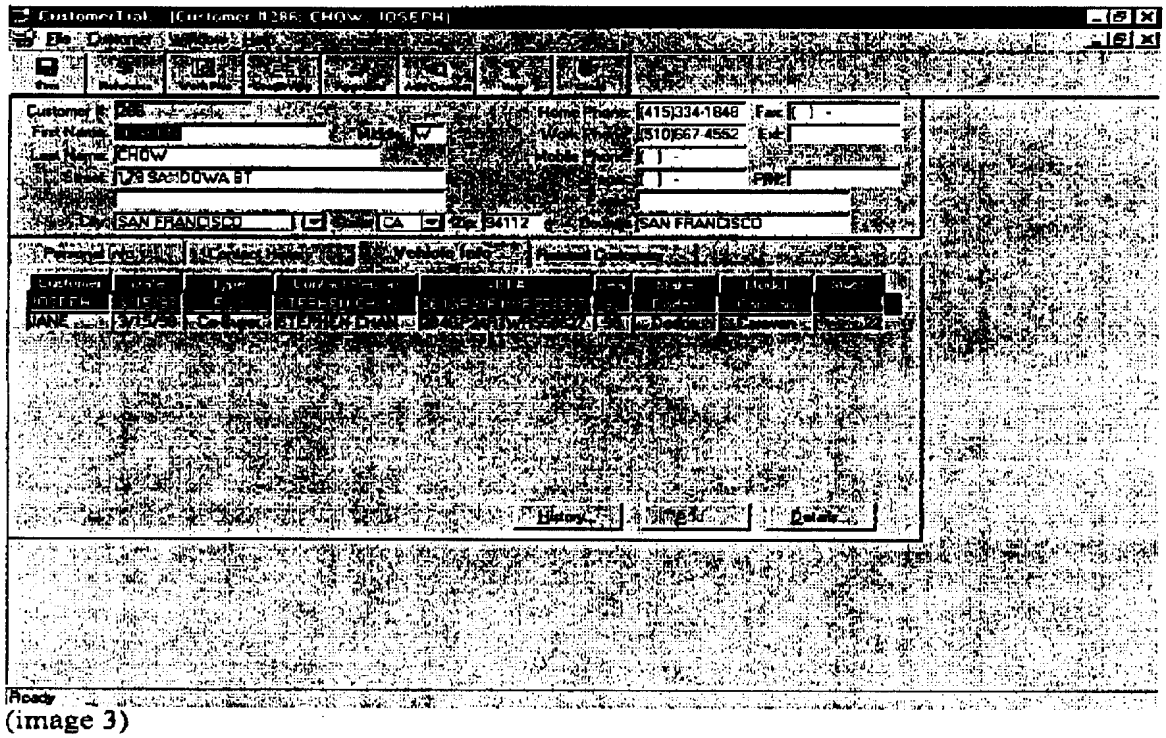
(image 1)

FIG 5A



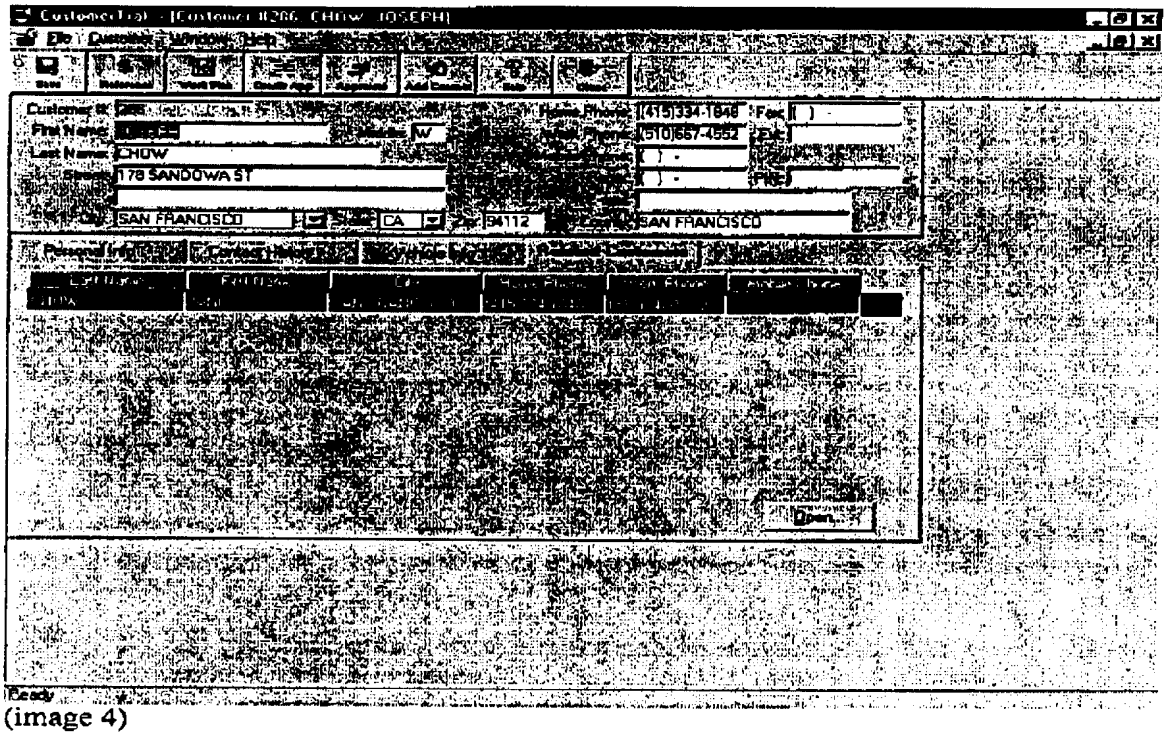
(image 2)

FIG 5B



(image 3)

FIG 5c



(image 4)

FIG 5D

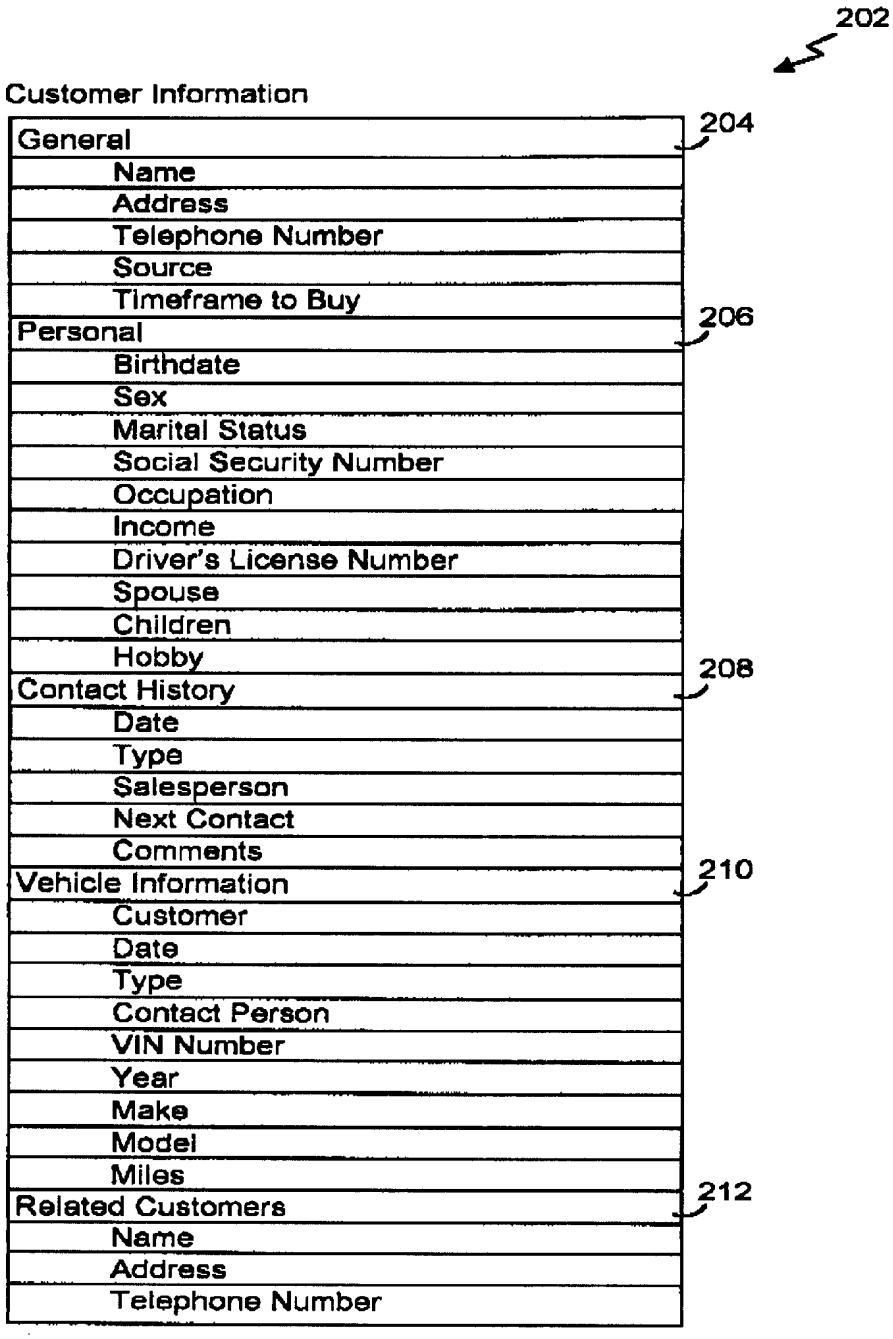
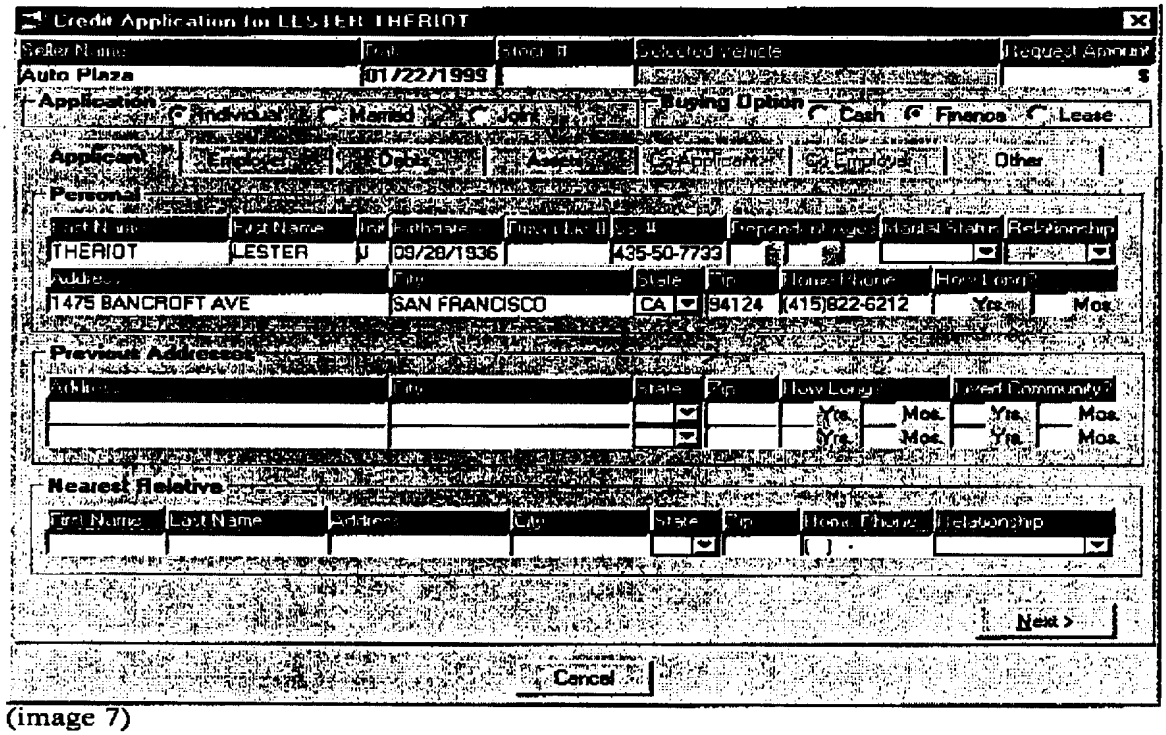
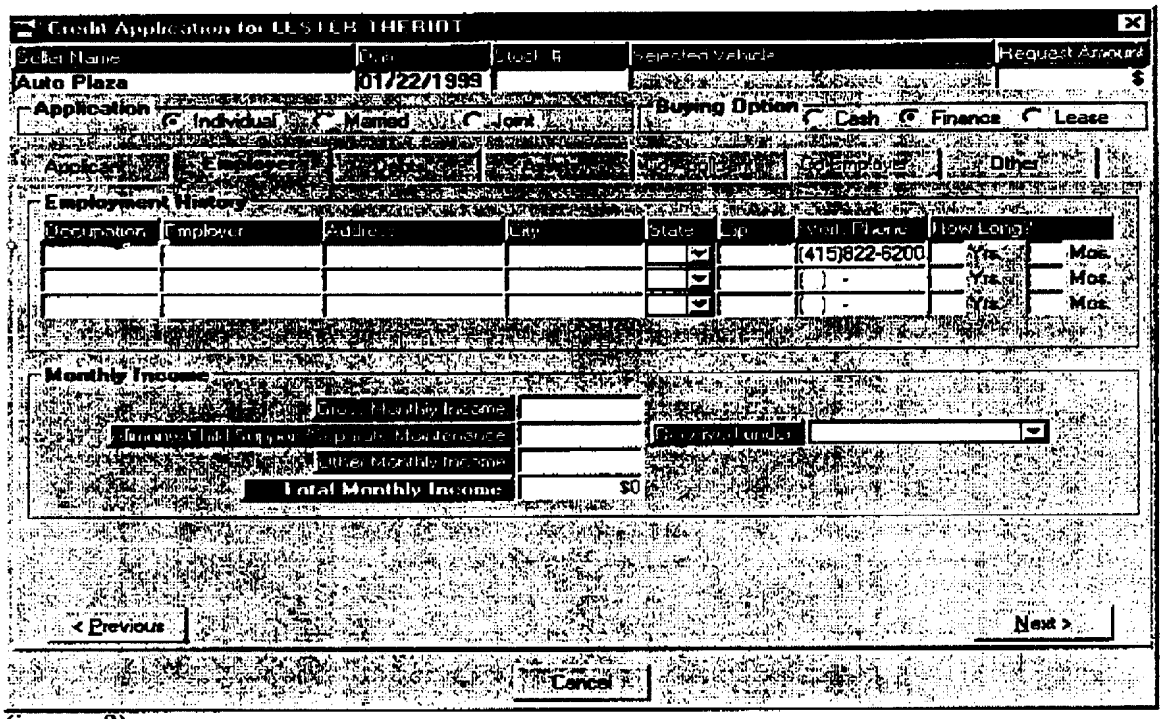

202
Customer Information
General
204
Name
Address
Telephone Number
Source
Timeframe to Buy
Personal
206
Birthdate
Sex
Marital Status
Social Security Number
Occupation
Income
Driver's License Number
Spouse
Children
Hobby
Contact History
208
Date
Type
Salesperson
Next Contact
Comments
Vehicle Information
210
Customer
Date
Type
Contact Person
VIN Number
Year
Make
Model
Miles
Related Customers
212
Name
Address
Telephone Number

FIG. 6



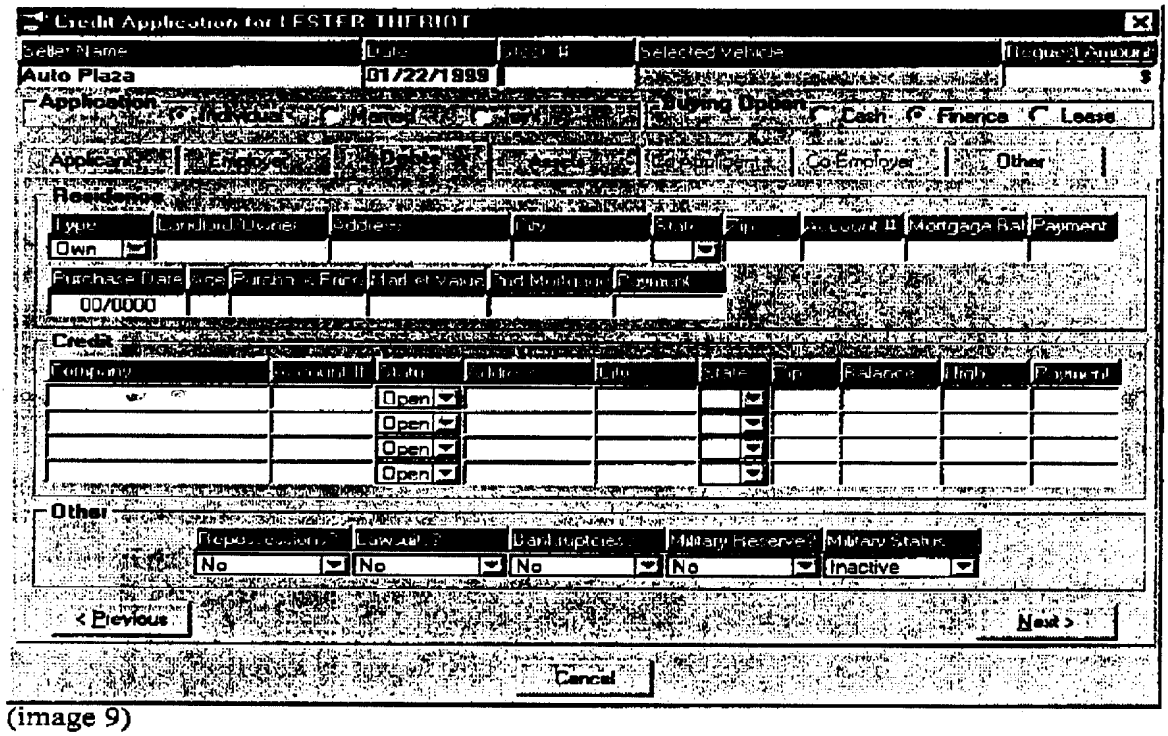
(image 7)

Fig 7A



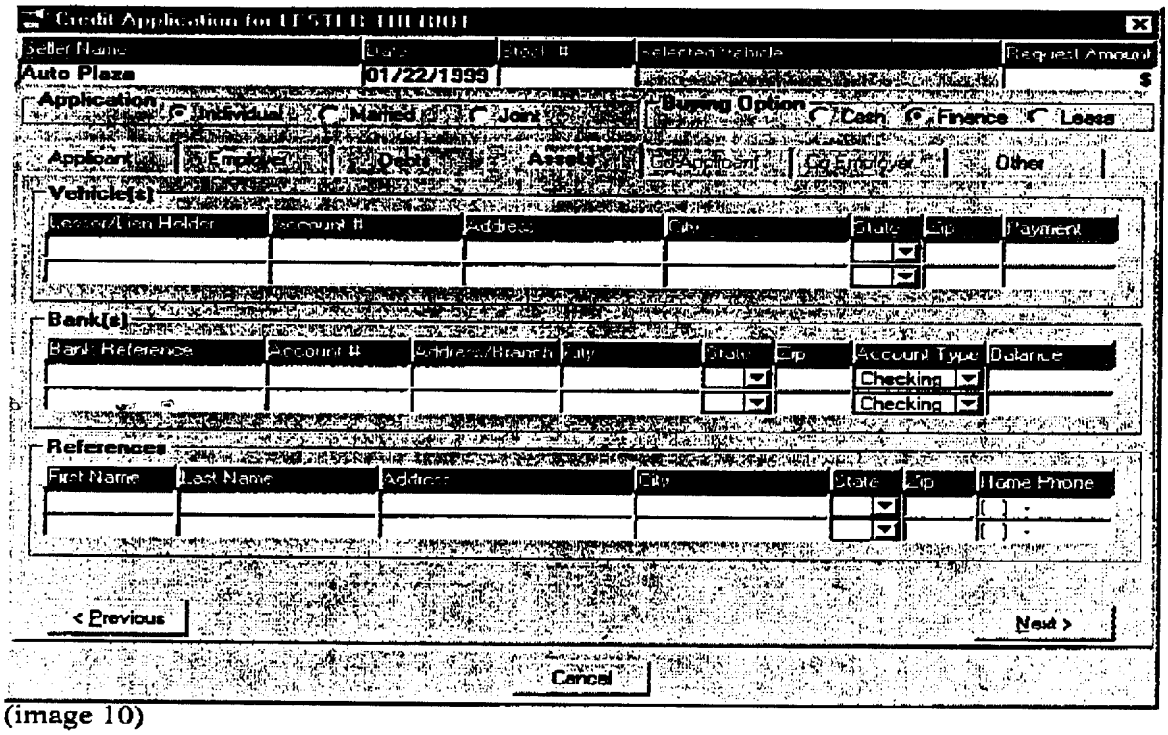
(image 8)

Fig 713



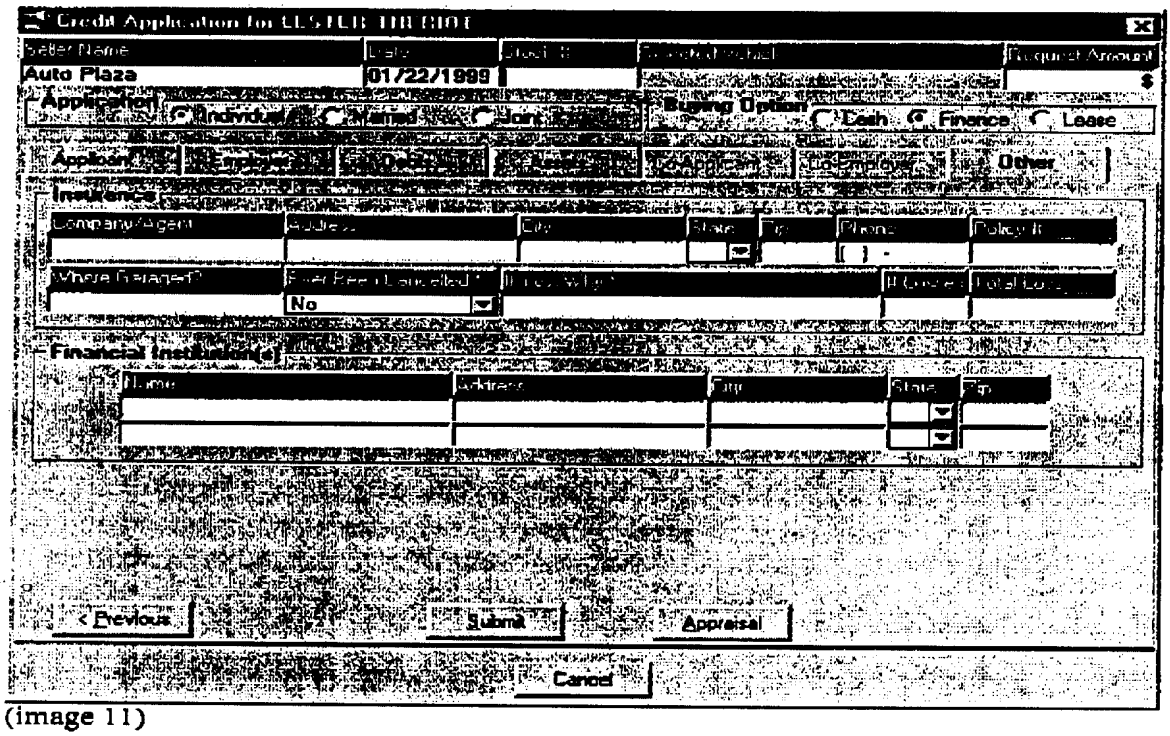
(image 9)

Fig 7C



(image 10)

FIG 7D



(image 11)

FIG 7E

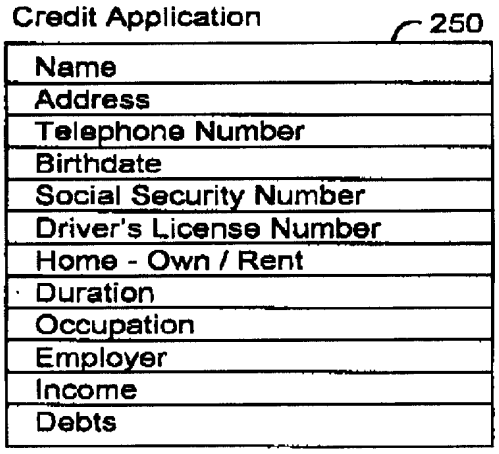

Credit Application
250
Name
Address
Telephone Number
Birthdate
Social Security Number
Driver's License Number
Home - Own / Rent
Duration
Occupation
Employer
Income
Debts

FIG. 8

Fig 9A

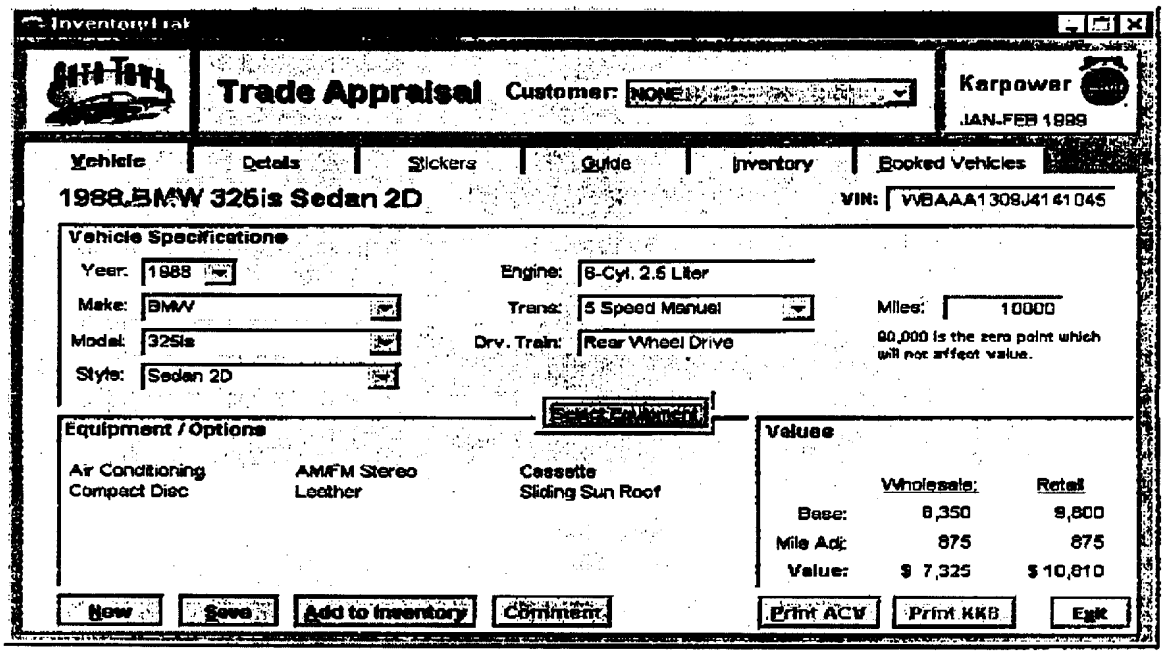
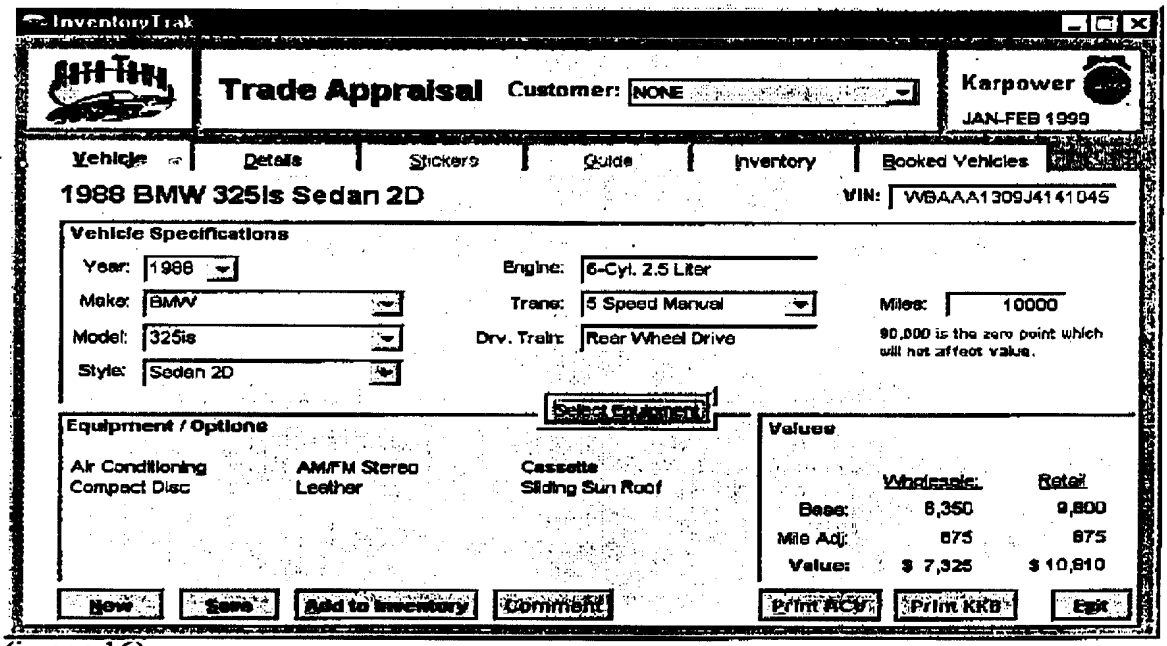
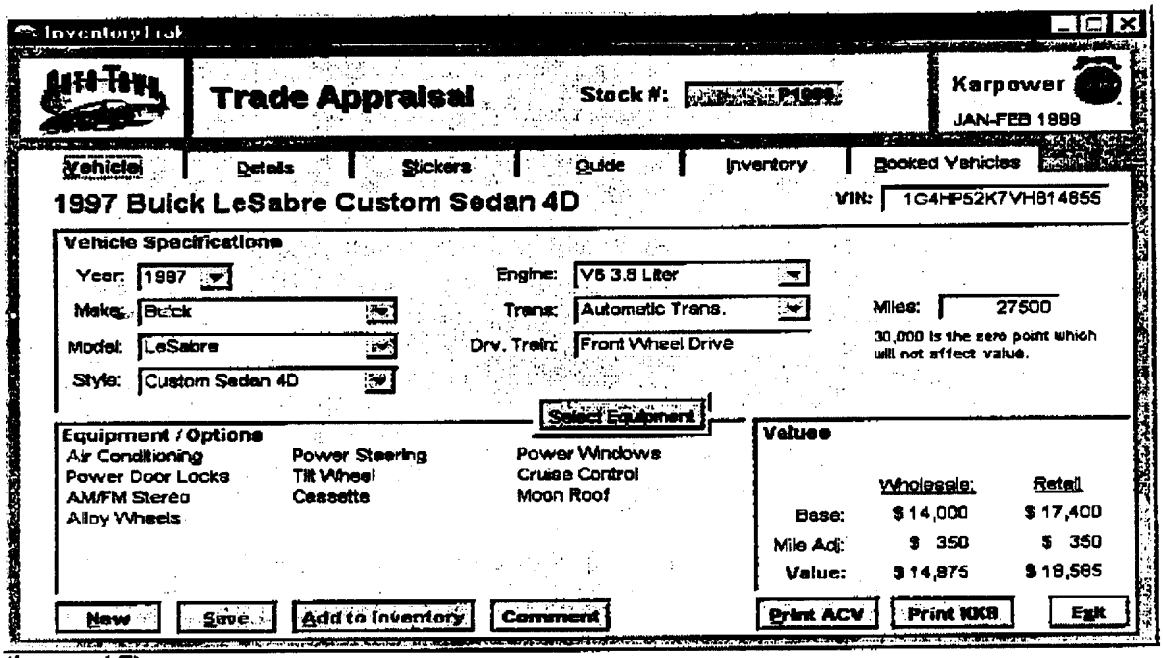


Fig 9A



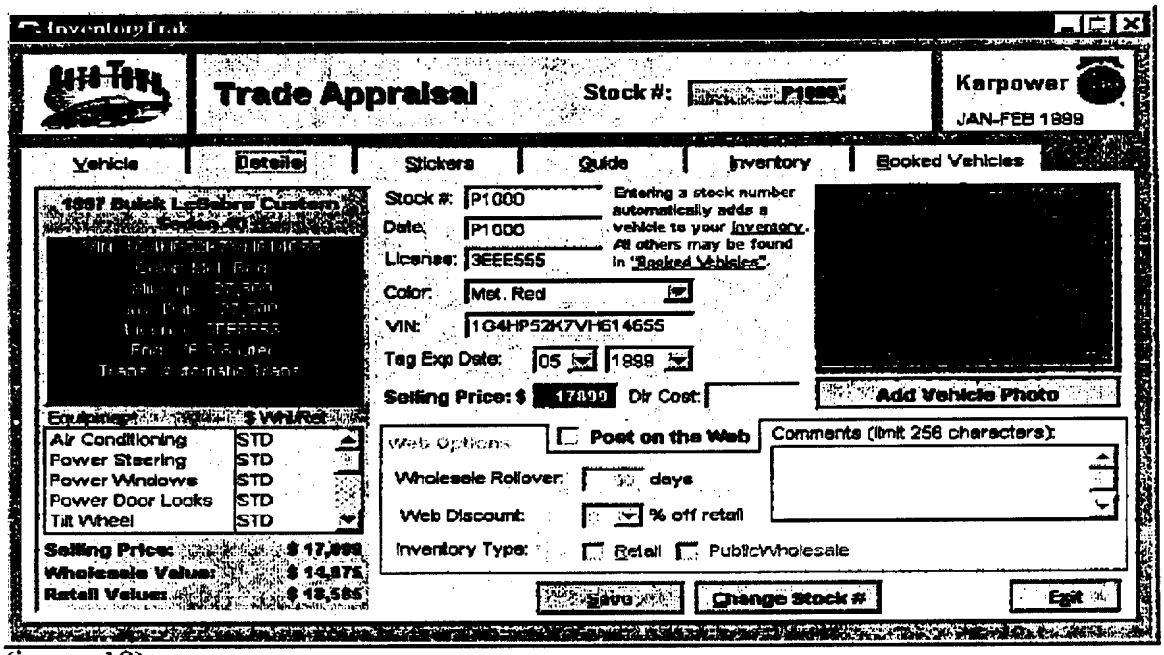
(image 16)

Fig 9B



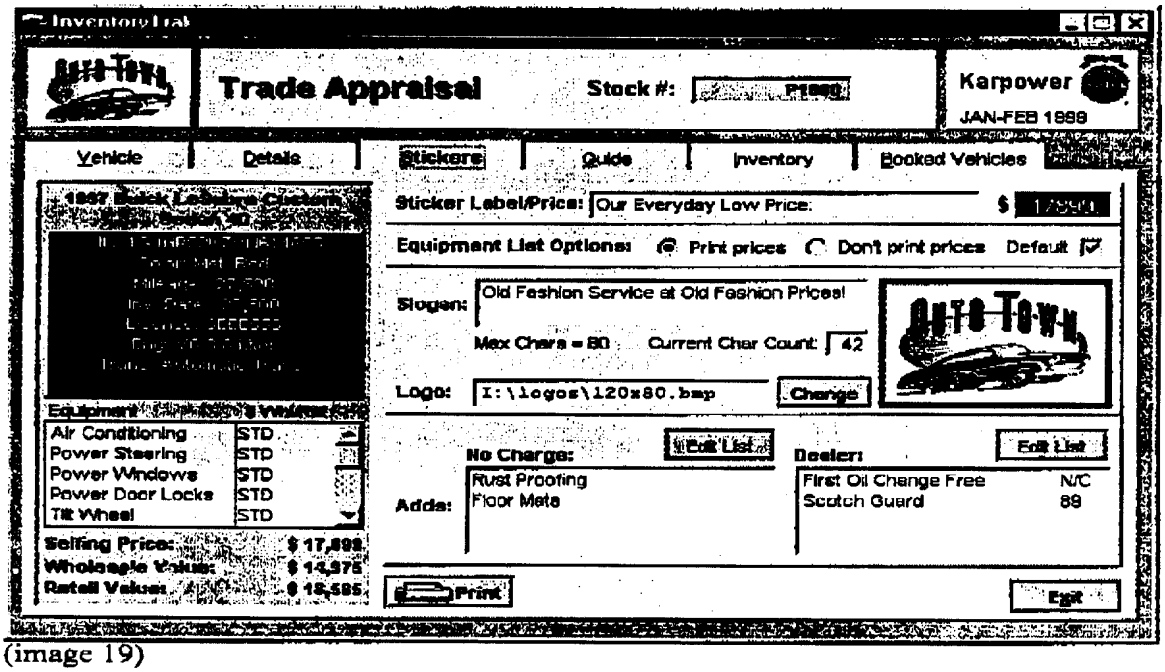
(image 17)

Fig 9C



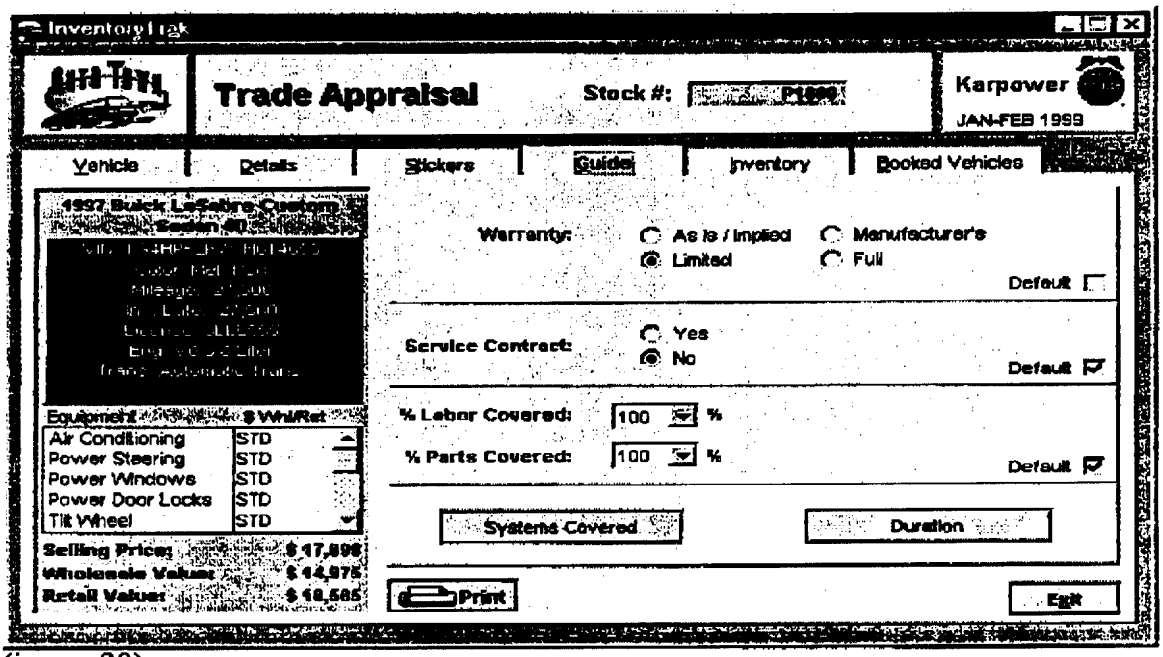
(image 18)

Fig 9D



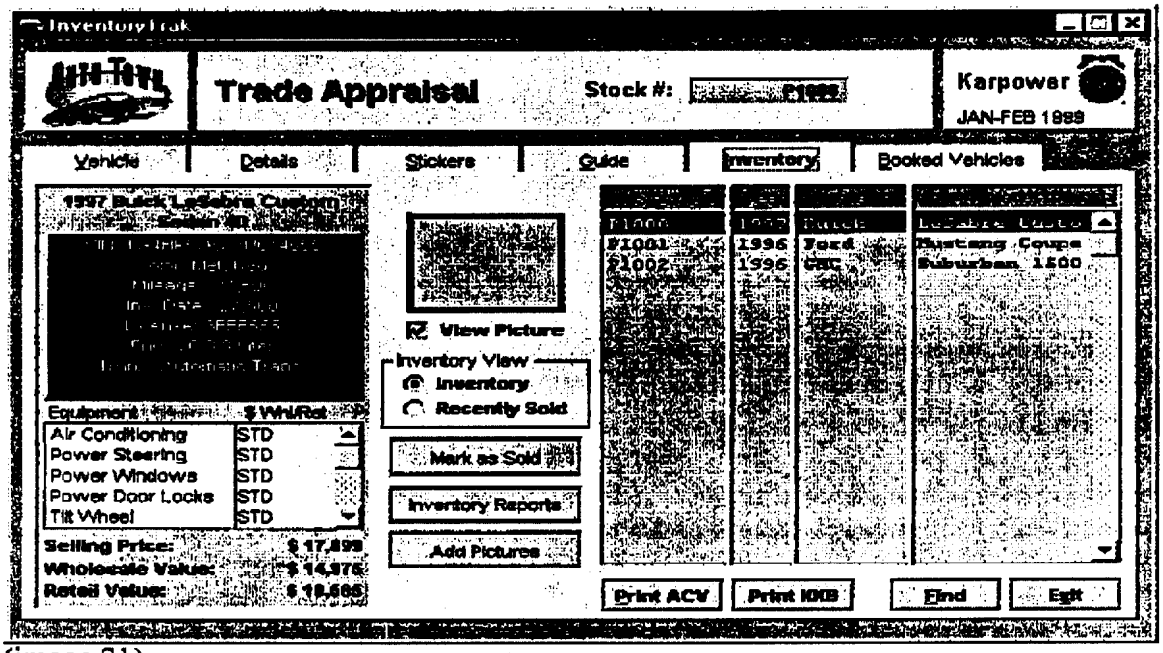
(image 19)

FIG 9E



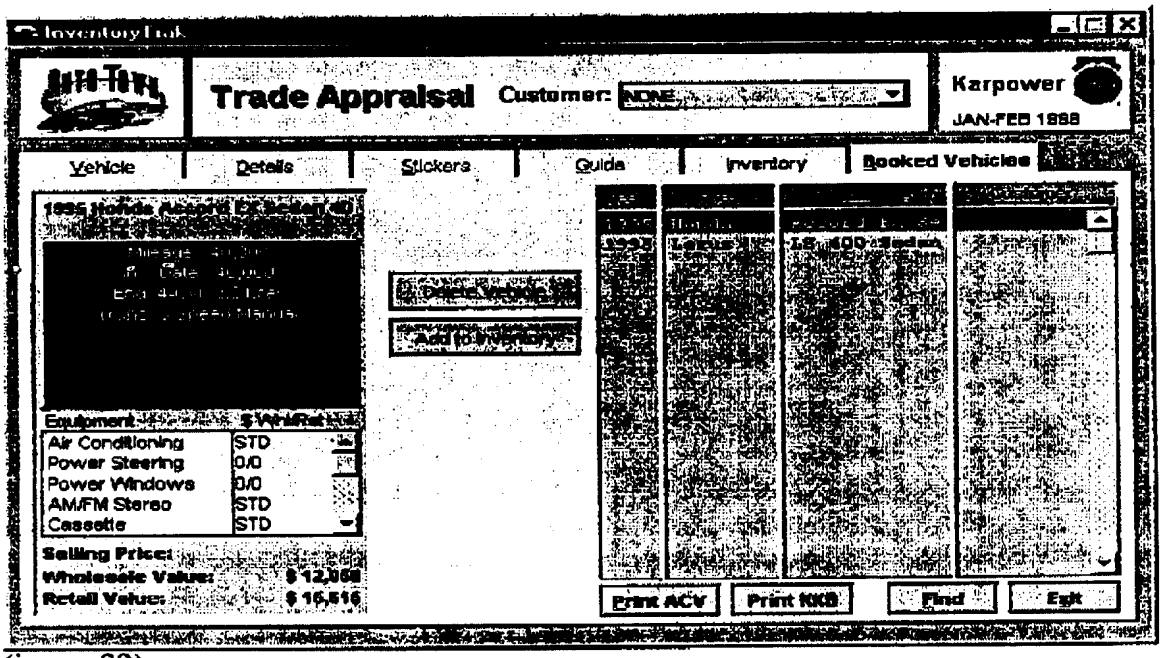
(image 20)

FIG 9F



(image 21)

FIG 96



(image 22)

Fig 9H

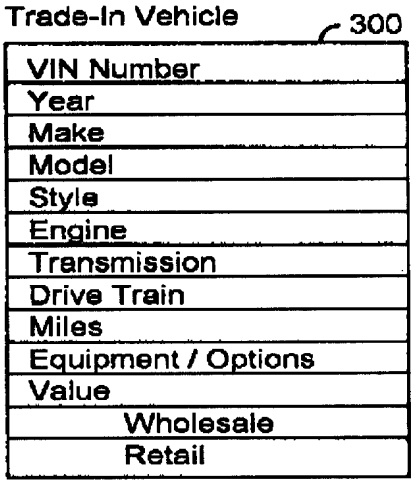

Trade-In Vehicle
300
VIN Number
Year
Make
Model
Style
Engine
Transmission
Drive Train
Miles
Equipment / Options
Value
Wholesale
Retail

FIG. 10

Date 11/22/98 Sls1 Tyson,M Sls2 ABERNATHY,B Loan Date 11/15/9.
Loan | Balloon | Lease 1st Pmt Date 12/15/98

342a 342b 342c

Msrp	25,000.00	Months	60	Warranty	1,295.00
Price	25,000.00	Dtfp...	30	Maint	750.00
Down	5,000.00	Apr	12.00	Gap	500.00
Trade	6,000.00	Rebate	1,515.00	Def Pmts	2,500.00
Pay-off	303.00	Ins Code	JL+AH	Collision	1,500.00
☐ License	584.00	Add On	6.69	Payment	448.91

Notes

One Pay 18,028.79 Enter Aft Mkts 2,310.00 ROS USED

Smog-Dlr	0.00	SlsTax =	8.250	Doc Fee	45.00	TG 6.500	Open Repair Order
Smog-St	0.00	LuxTax		Days Inv	31	FG	

Stk# 1234 1998 FORD MUSTANG GL

A Aft Mkt	G Go Setup	M Misc	S Salesman
B Bank/Lse	H Sale Mde	N Dlr Name	T Tax Rate
C Customer	I Inventory	O I Dmv	U I Pay Lse
D Drive Off	J Doc Fee	P Prompt	V Veh Stk#
E Enhanced	K Crdt Chk	Q Recap	W Wk Files
F Forms	L Ex Miles	R Reports	X Lse Comp

Deal # | Pmts | Daily | MTD

Update 11/22/98 10:38:

2

FI	5,156.99
TG	8,772.00
	13,928.99

Detail ☐ FI ☐ Top

340

FIG 11A

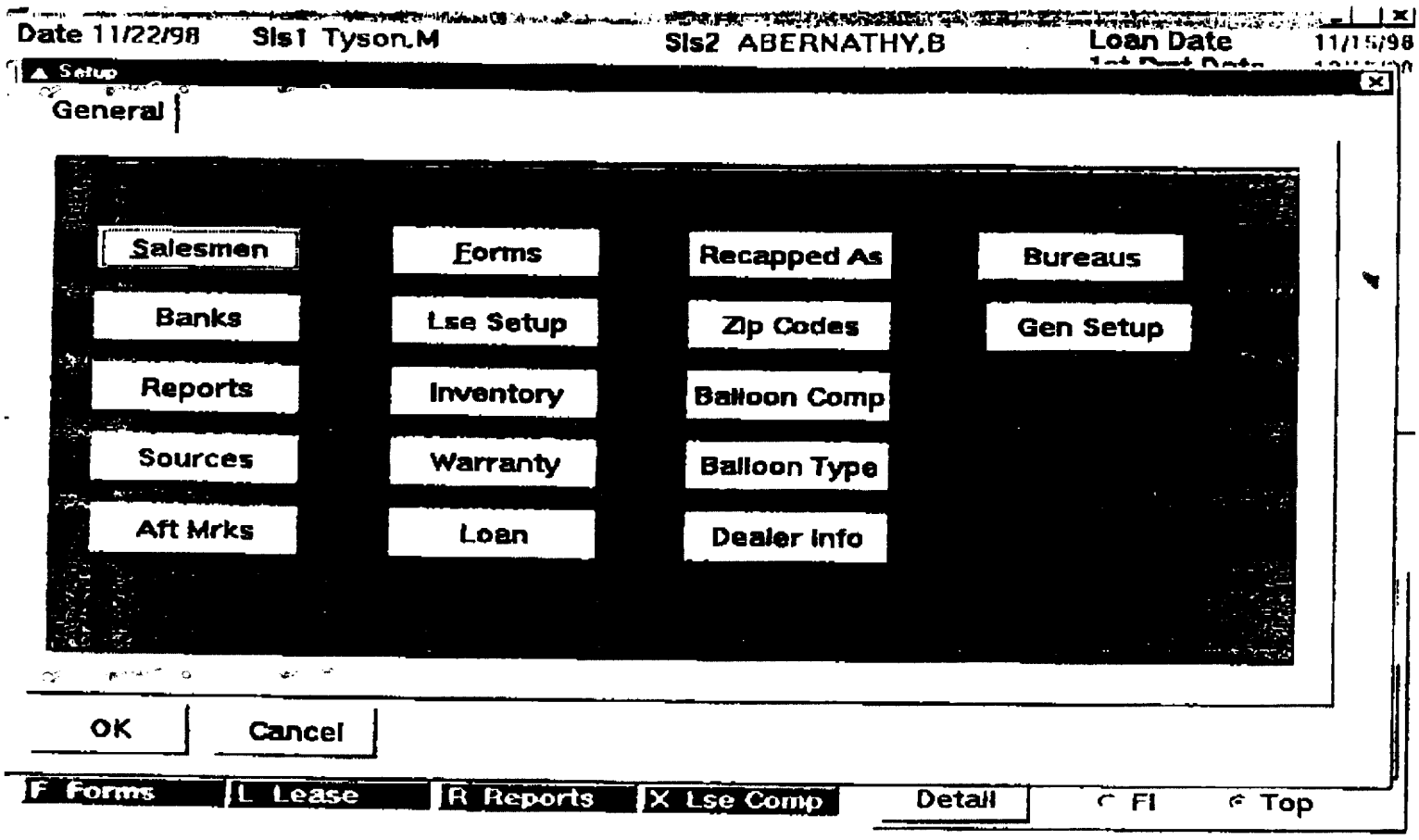

Date 11/22/98
Sls1 Tyson,M
Sls2 ABERNATHY,B
Loan Date
Setup
General
Salesmen
Forms
Recapped As
Bureaus
Banks
Lse Setup
Zip Codes
Gen Setup
Reports
Inventory
Balloon Comp
Sources
Warranty
Balloon Type
Aft Mrks
Loan
Dealer Info
OK
Cancel
F Forms
L Lease
R Reports
X Lse Comp
Detail
FI
Top

FIG 11B

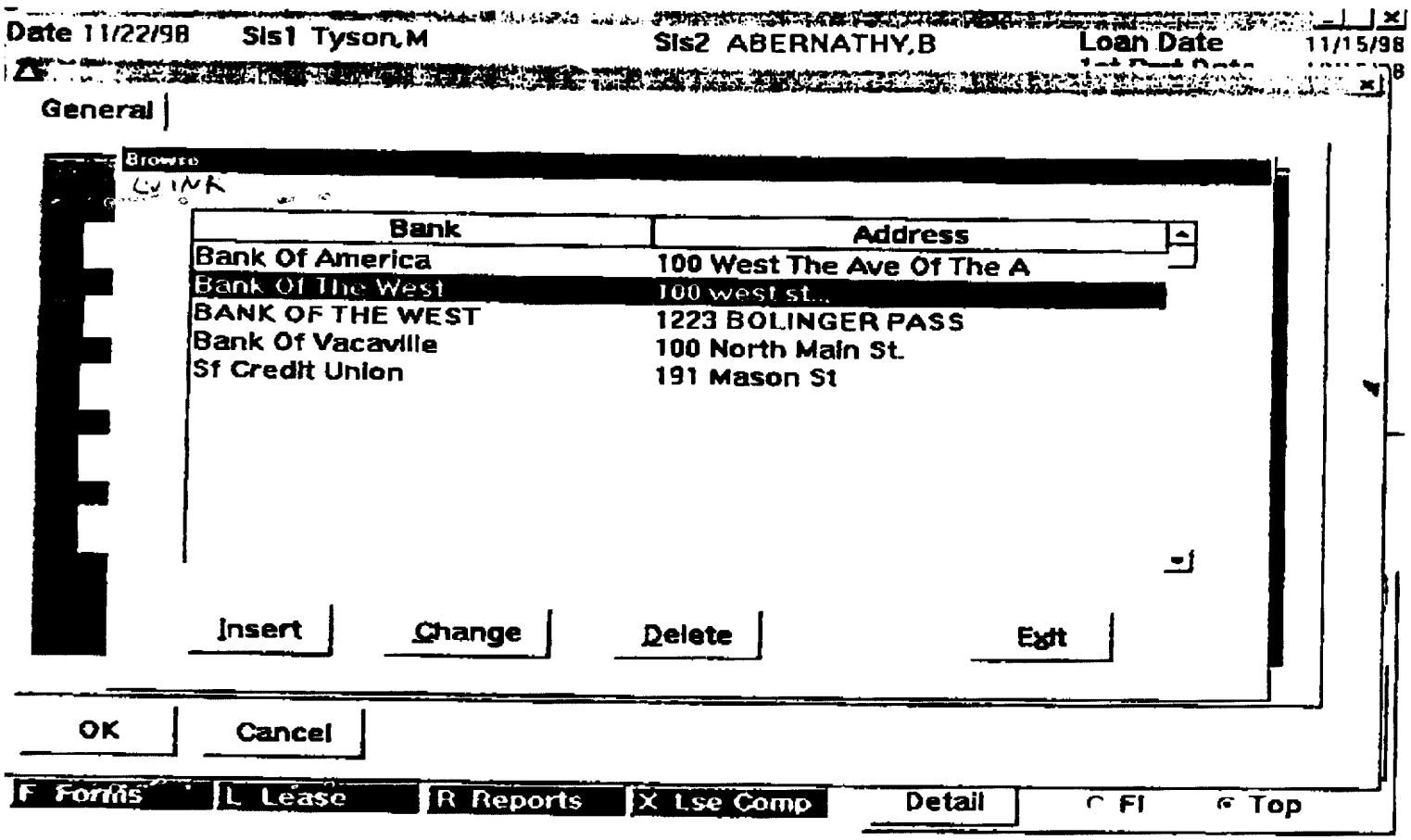

Date 11/22/98
Sls1 Tyson,M
Sls2 ABERNATHY,B
Loan Date 11/15/98
General
Browse
Bank
Address
Bank Of America
100 West The Ave Of The A
Bank Of The West
100 west st...
BANK OF THE WEST
1223 BOLINGER PASS
Bank Of Vacaville
100 North Main St.
Sf Credit Union
191 Mason St
Insert
Change
Delete
Exit
OK
Cancel
F Forms
L Lease
R Reports
X Lse Comp
Detail
Fl
Top

Fig 11c

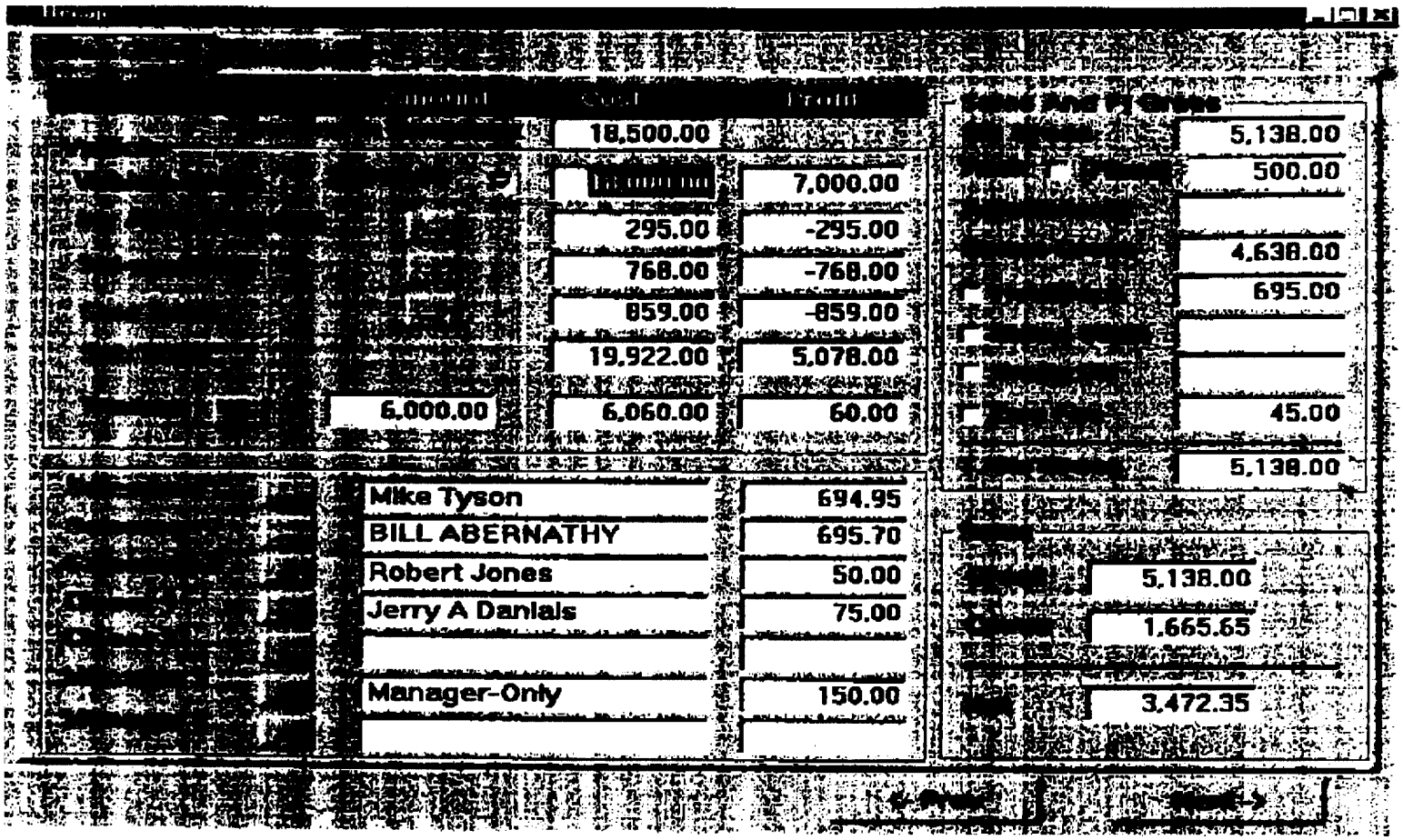

18,500.00
7,000.00
295.00
-295.00
768.00
-768.00
859.00
-859.00
19,922.00
5,078.00
6,000.00
6,060.00
60.00
5,138.00
500.00
4,638.00
695.00
45.00
5,138.00
Mike Tyson
694.95
BILL ABERNATHY
695.70
Robert Jones
50.00
Jerry A Daniels
75.00
Manager-Only
150.00
5,138.00
1,665.65
3,472.35

FIG 11 D

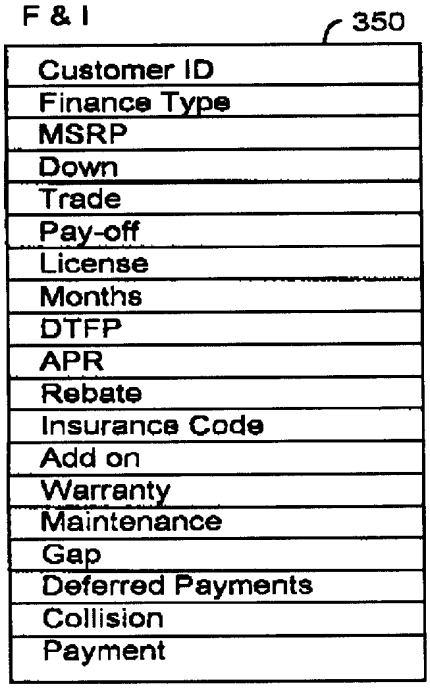

F & I
350
Customer ID
Finance Type
MSRP
Down
Trade
Pay-off
License
Months
DTFP
APR
Rebate
Insurance Code
Add on
Warranty
Maintenance
Gap
Deferred Payments
Collision
Payment

FIG. 12

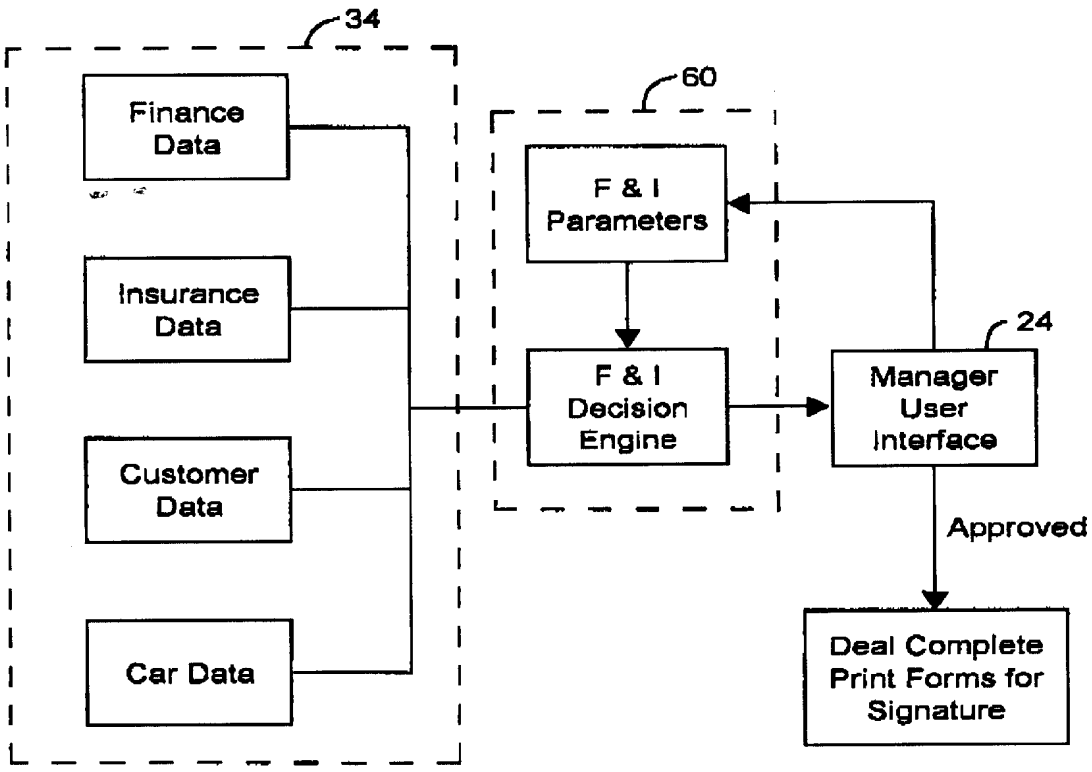

34
Finance Data
Insurance Data
Customer Data
Car Data
60
F & I Parameters
F & I Decision Engine
24
Manager User Interface
Approved
Deal Complete Print Forms for Signature

FIG. 13

Sales Records 400

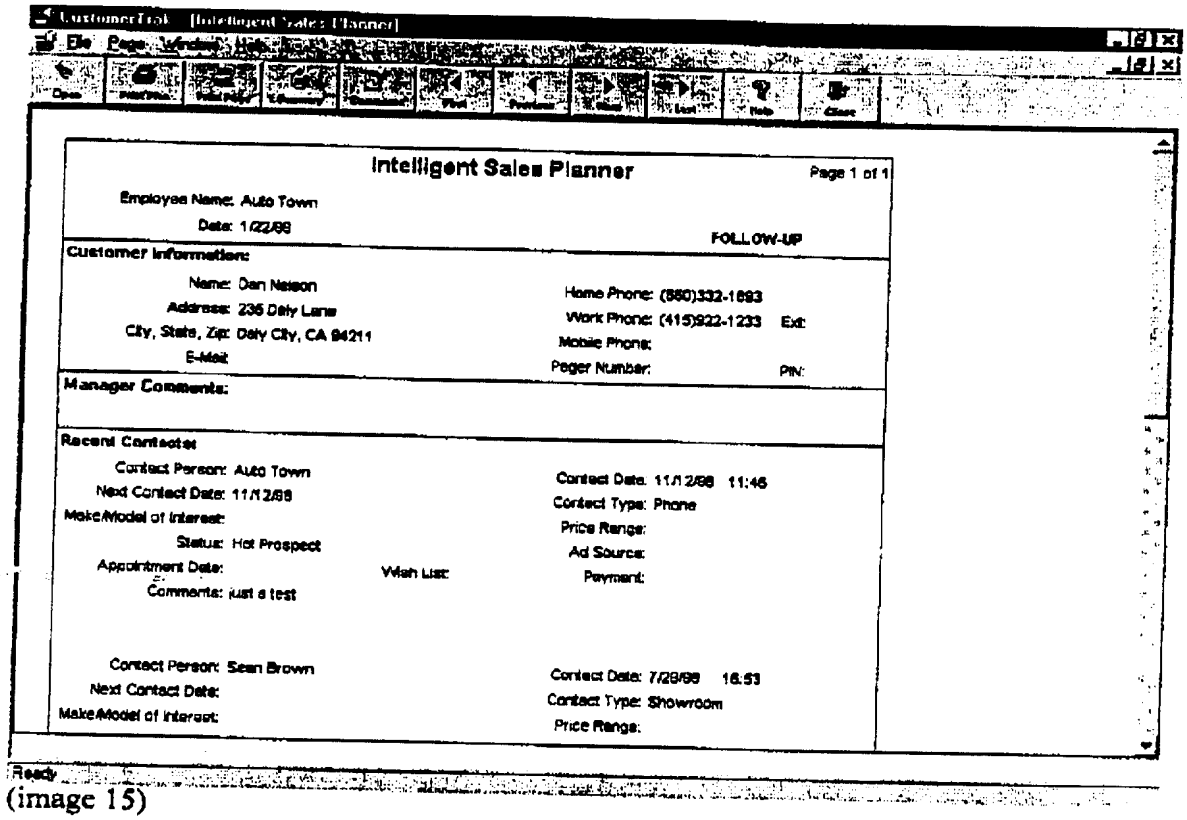
Salesperson	
Customers Met	402
Customers Demo'd	404
Customers F&I'd	406
Total Sales Closed	408
Gross Profits Made	410
Gross Commissions Earned	412
Work List Pointers	414
Follow Ups	
Letter Type 1	
Letter Type 2	

FIG. 14A

Manager's Records 450

Salesperson Pointers
#1
#2
#3
Total Customers
Referral Sources
Customers Demo'd
Customers F&I'd
Total Sales (Gross $ Sales)
Gross Profits
Net Profits

FIG. 15



(image 15)

FIG 14B